PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : C07H 21/04, C12Q 1/68, C12N 15/63, 15/85, C12P 21/02 — A1

(11) International Publication Number: WO 98/14466

(43) International Publication Date: 9 April 1998 (09.04.98)

(21) International Application Number: PCT/US97/17658

(22) International Filing Date: 30 September 1997 (30.09.97)

(30) Priority Data:

08/724,394	1 October 1996 (01.10.96)	US
08/852,495	7 May 1997 (07.05.97)	US

(71) Applicant: PROGENTIOR, INC. [US/US]; 4040 Campbell Avenue, Menlo Park, CA 94025 (US).

(72) Inventors: FEDER, John, N.; 1450 Chestnut Street, San Carlos, CA 94070 (US). KRONMAL, Gregory, S.; 277 Gateway Drive #131, Pacifica, CA 94044 (US). LAUER, Peter, M.; 128 Randall Street, San Francisco, CA 94131 (US). RUDDY, David, A.; 885 Greenwich Street, San Francisco, CA 94133 (US). THOMAS, Winston, J.; 40 White Plains Court, San Mateo, CA 94402 (US). TSUCHIHASHI, Zenta; 9 Light Way, Menlo Park, CA 94025 (US). WOLFF, Roger, K.; 41 Eugene Street, Mill Valley, CA 94941 (US).

(74) Agents: FITTS, Renee, A. et al.; Townsend and Townsend and Crew LLP, 8th floor, Two Embarcadero Center, San Francisco, CA 94111-3834 (US).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: POLYMORPHISMS AND NEW GENES IN THE REGION OF THE HUMAN HEMOCHROMATOSIS GENE

(57) Abstract

Polymorphic sites in the region surrounding the HFE gene are provided. These polymorphisms are useful as surrogate markers in diagnostic assays for hemochromatosis. Additionally, a fine structure map of the 1 megabase region surrounding the HFE gene is provided, along with 235 kb of DNA sequence and 8 loci corresponding to candidate genes within the 1 megabase region, and in the purification of related proteins.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece			TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	NZ	New Zealand		
CM	Cameroon			PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

Polymorphisms and New Genes in the Region of the Human Hemochromatosis Gene

BACKGROUND OF THE INVENTION

Hereditary hemochromatosis (HH) is an inherited disorder of iron metabolism wherein the body accumulates excess iron. In symptomatic individuals, this excess iron leads to deleterious effects by being deposited in a variety of organs leading to their failure, and resulting in cirrhosis, diabetes, sterility, and other serious illnesses. The gene which is defective in this disease was disclosed in copending U.S.S.N. 08/652,265.

Fine structure mapping of the region to which the gene responsible for HH, HFE (denoted HH or HFE in some publications), was mapped makes possible the identification of candidate sequences comprising the HFE gene, along with structural elements for regulation and expression and neighboring genes.

A variety of techniques is available for fine structure mapping, including direct cDNA selection, exon-trapping, and genomic sample sequencing. The direct selection approach (Lovett *et al.* Proc. Natl. Acad. Sci. U.S.A. 88:9628-9623 (1991)) involves the hybridization of cDNA fragments to genomic DNA. This technique is extremely sensitive and capable of isolating portions of rare transcripts. Exon-trapping (Church *et al.* Nature Genetics 6:98-105 (1994)) recovers spliced introns from *in vivo* expressed genomic DNA clones and produces candidate exons without requiring any prior knowledge of the target's gene expression. High-throughput genomic DNA sequencing with comparison of the sequence data to databases of expressed sequences has also been used, such as in the positional cloning of the Werner syndrome gene (Yu *et al.* Science 277:258-262 (1996)) and in cloning by homology of the second Alzheimer's disease gene on chromosome 1 (Levy-Lahad *et al.* Science 269:973-977 (1995)).

HH is typically inherited as a recessive trait; in the current state of knowledge, homozygotes carrying two defective copies of the gene are most frequently affected by the disease. In addition, heterozygotes for the HFE gene are more susceptible to sporadic porphyria cutanea tarda and potentially other disorders (Roberts et al., Lancet 349:321-323 (1997). It is estimated that approximately 10-15% of Caucasians carry one copy of the HFE gene mutation and that there are about one million homozygotes in the United States. HH, thus, represents one of the most common genetic disease mutations in Caucasian individuals. Although ultimately HH produces debilitating symptoms, the majority of homozygotes and heterozygotes have not been diagnosed.

The need for such diagnostics is documented, for example, in Barton, J.C. et al. Nature Medicine 2:394-395 (1996); Finch, C.A. West J Med 153:323-325 (1990); McCusick, V. Mendelian Inheritance in Man pp. 1882-1887, 11th ed., (Johns Hopkins University Press, Baltimore (1994)); Report of a Joint World Health Organization/Hemochromatosis Foundation/French Hemochromatosis Association Meeting on the Prevention and Control of Hemochromatosis (1993); Edwards, C.Q. et al. New Engl J Med 328:1616-1620 (1993); Bacon, B.R. New Engl J Med 326:126-

127 (1992); Balan, V. et al. Gastroenterology 107:453-459 (1994); Phatak, P.D. et al. Arch Int Med 154:769-776 (1994).

A single mutation in the HFE gene, designated 24d1 in copending U.S.S.N. 08/630,912, gave rise to the majority of disease-causing chromosomes present in the population today. This is referred to herein as the "common" or "ancestral" or "common ancestral" mutation. These terms are used interchangeably. It appears that about 80% to 90% of all HH patients carry at least one copy of the common ancestral mutation which is closely linked to specific alleles of certain genetic markers close to this ancestral HFE gene defect. These markers are, as a first approximation, in the allelic form in which they were present at the time the ancestral HFE mutation occurred. *See, for example,* Simon, M. et al. Am J Hum Genet 41:89-105 (1987); Jazwinska, E.C. et al. Am J Hum Genet 53:242-257 (1993); Jazwinska, E.C. et al. Am J Hum Genet 56:428-433 (1995); Worwood, M. et al. Brit J Hematol 86:863-866 (1994); Summers, K.M. et al. Am J Hum Genet 45:41-48 (1989).

Several polymorphic markers in the HFE region have been described and shown to have alleles that are associated with HH disease. These markers include the published microsatellite markers D6S258, D6S306 (Gyapay, G. et al. Nature Genetics 7:246-339 (1994)), D6S265 (Worwood, M. et al. Brit J Hematol 86:833-846 (1994)), D6S105 (Jazwinska, E.C. et al. Am J Hum Genet 53:242-257 (1993); Jazwinska, E.C. et al. Am J Hum Genet 56:428-433 (1995)), D6S1001 (Stone, C. et al. Hum Molec Genet 3:2043-2046 (1994)), D6S1260 (Raha-Chowdhury et al. Hum Molec Genet 4:1869-1874 (1995)) as well as additional microsatellite and single-nucleotide-polymorphism markers disclosed in co-pending PCT application WO 96/06583, the disclosure of which is hereby incorporated by reference in its entirety. Additionally, copending U.S.S.N. 08/630,912 disclosed additional markers 24d2 and 24d7.

The symptoms of HH are often similar to those of other conditions, and the severe effects of the disease often do not appear immediately. Accordingly, it would be desirable to provide a method to identify persons who may be destined to become symptomatic in order to intervene in time to prevent excessive tissue damage associated with iron overload. One reason for the lack of early diagnosis is the inadequacy of presently available diagnostic methods to ascertain which individuals are at risk, especially while such individuals are presymptomatic.

Although blood iron parameters can be used as a screening tool, a confirmed diagnosis often employs liver biopsy which is undesirably invasive, costly, and carries a risk of mortality. Thus, there is a clear need for the development of an inexpensive and noninvasive diagnostic test for detection of homozygotes and heterozygotes in order to facilitate diagnosis in symptomatic individuals, provide presymptomatic detection to guide intervention in order to prevent organ damage, and for identification of heterozygote carriers.

Furthermore, a need exists for both methods for fine structure mapping and a fine structure map of the region of the chromosome to which the HH locus maps. This and other needs are addressed by the present invention.

SUMMARY OF THE INVENTION

One aspect of the invention is an oligonucleotide comprising at least 8 to about 100 consecutive bases from the sequence of Figure 9, or the complement of the sequence, wherein the at least 8 to about 100 consecutive bases includes at least one polymorphic site of Table 1.

Another aspect of the invention is an oligonucleotide pair selected from the sequence of Figure 9 or its complement for amplification of a polymorphic site of Table 1.

Another aspect of the invention is an isolated nucleic acid molecule comprising about 100 consecutive bases to about 235 kb substantially identical to the sequence of Figure 9, wherein the DNA molecule comprises at least one polymorphic site of Table 1.

Another aspect of the invention is a method to determine the presence or absence of the common hereditary hemochromatosis (HFE) gene mutation in an individual comprising:

providing DNA or RNA from the individual; and

assessing the DNA or RNA for the presence or absence of a haplotype of Table 1,

wherein, as a result, the absence of a haplotype of Table 1 indicates the likely absence of the HFE gene mutation in the genome of the individual and the presence of the haplotype indicates the likely presence of the HFE gene mutation in the genome of the individual.

Another aspect of the invention is a method to determine the presence or absence of the common hereditary hemochromatosis (HFE) gene mutation in an individual comprising:

providing DNA or RNA from the individual; and

assessing the DNA or RNA for the presence or absence of a genotype defined by a polymorphic allele of Table 1,

wherein, as a result, the absence of a genotype defined by a polymorphic allele of Table 1 indicates the likely absence of the HFE gene mutation in the genome of the individual and the presence of the genotype indicates the likely presence of the HFE gene mutation in the genome of the individual.

Another aspect of the invention is a culture of lymphoblastoid cells having the designation ATCC CRL-12371.

One aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to BTF1.

A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to BTF2.

A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to BTF3.

A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to BTF4.

A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to BTF5.

A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to NPT3.

A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to NPT4.

A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to RoRet.

Additional aspects of the invention include nucleic acid sequences that are cDNAs, polypeptides encoded by the nucleic acids of the invention and antibodies specifically immunoreactive thereto, vectors comprising the nucleic acid sequences of the invention, and host cells stably transfected with the nucleic acids of the invention.

A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of BTF1.

A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of BTF2.

A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of BTF3.

A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of BTF4.

A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of BTF5.

A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of NPT3.

A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of NPT4.

A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of RoRet.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 depicts a combination genetic, physical and transcription map of the HFE gene region. The first line shows the relative positions of selected genetic markers that define the HFE region. The heavy bar below represents the YAC clone used in the direct selection experiment. The order and positions of the bacterial clones employed in the exon-trapping and sample sequencing is indicated under the YAC. The thin bar under the bacterial clones represents the approximate locations of a subset of the expressed sequence fragments mapped to the contig. The thicker bars show the location of the cDNAs cloned. Two regions are bracketed; the butyrophilin family of genes (BTF), and the region where complete genomic sequencing was carried out.

Figure 2 is a schematic of the 250 kb of genomic sequence including the HFE gene. Both the structure of the overall cDNA (top) and that corresponding to the coding regions (bottom), as well as the direction of transcription are shown. The positions of the histone genes, the zinc α-2 glycoprotein pseudogene, and the ESTs are also shown.

Figure 3 depicts an alignment of the predicted amino acid sequence of the BTF proteins. Sequences were aligned in a pair-wise fashion using CLUSTAL W (Thompson *et al.* Nucl. Acids Res. 22:4673-4680) to deduce the most parsimonious arrangement. The asterisks under the

alignment represent amino acids conserved in all 6 proteins; the "dots" represent conserved amino acids substitutions. Boxed are the regions within the proteins which correspond to three conserved motifs: 1) the B-G domain, 2) the transmembrane domain (TM), and 3) the B30-2 exon domain.

Figure 4, panel (A) depicts a Northern blot analysis of representative members of the two groups of BTF proteins, BTF1 and BTF5. BTF1 hybridized to all tissues on the blot as a major transcript at 2.9 kb and a minor one at 5.0 kb. BTF5 hybridized to several transcripts ranging between 4.0 and 3.1 kb and as a similar expression profile to BTF1. Autoradiography was for 24 hours. The β-actin hybridization demonstrated the variation in ploy (A)+ RNA between the lanes. Autoradiography was for 1 hour. In panel (B), RT-PCR analysis demonstrated that the expression of both genes was widespread. Included in the (+) lane are cDNA 21 and 44 as positive controls; the (-) lane represents the no-DNA control. Amplification using primers for the RFP gene (Isomura *et al.* Nucleic Acid Res. 20:5305-5310 (1992)) controlled for the integrity of the cDNA. All first strand cDNAs were checked for contaminating genomic DNA amplification by carrying out an identical experiment excluding the reverse transcriptase. In all cases, no amplification was obtained (data not shown).

Figure 5(A) depicts an alignment of the predicted amino acid sequence of the RoRet gene to the 52 kD Ro/SSA auto-antigen protein. The asterisks under the alignment represent conserved amino acids; the "dots" represent conserved amino acids substitutions. The putative DNA binding cysteine-rich domain and the B30-2 exon domain are boxed. Figure 5(B) depicts an alignment of the predicted amino acid sequence of the two novel putative sodium phosphate transport proteins to that of the NPT1.

Figure 6, panel (A) depicts a Northern blot analysis of the RoRet gene. The RoRet cDNA hybridized to 4 different transcripts, ranging from 7.1 kb to 2.2 kb. Autoradiography was performed for 4 days. The re-hybridization of the blot with a β-actin probe showed the variation in poly (A)+ RNA between the lanes. Autoradiography was for 1 hour. Panel (B) depicts RT-PCR analysis of the RoRet gene. Included in the (+) lane was a cDNA 27 positive control. Weak amplification of the correct size was observed in the small intestine, kidney and liver. The other tissues were negative as was the no DNA control lane (-). The RFP primers demonstrated the integrity of the cDNA. Panel (C) depicts Northern blot analysis of NPT3 and NPT4. NPT3 was expressed at high abundance in the heart and muscle as a single 7.2 kb transcript. Lesser amounts were found in the other tissues. The expression pattern of NPT4 was more restricted, being found only in the liver and kidney as a smear of transcripts ranging from 2.6 to 1.7 kb. Panel (D) depicts RT-PCR analysis of the NPT3 and NPT4 genes. Included in the (+) lane were the respective cDNA22E and 22B positive controls. The NPT3 gene was expressed as the proper size PCR fragment in kidney, liver, spleen and testis. A smaller fragment was detected in all tissues with the exception of the liver. The no DNA control lane (-) was negative. NPT4 was expressed as the proper size fragment in the small intestine, kidney, liver and testis. Larger and smaller size fragments were found in all other tissues with the exception of the brain. For both genes these different size fragments may indicate alternative splice events. The no DNA control lane (-) was negative. The RFP primers demonstrated the integrity of the cDNA.

Figure 7 depicts the sequences of cDNA 21 (BTF1), cDNA 29 (BTF3), cDNA 23 (BTF4), cDNA 44 (BTF5), cDNA 32 (BTF2), cDNA 27 (RoRet), cDNA 22B (NPT3), cDNA22E (NPT4).

Figure 8 depicts the nucleotide sequence of approximately 235 kb in the HFE subregion from an unaffected individual.

Figure 9 depicts the nucleotide sequence of approximately 235 kb in the HFE subregion from an HH affected individual. Polymorphic sites in the HH affected individual determined by comparing a sequence of the corresponding region from an HH unaffected individual are listed and described in Table I.

DETAILED DESCRIPTION

A. Definitions

Abbreviations for the twenty naturally occurring amino acids follow conventional usage. In the polypeptide notation used herein, the left-hand direction is the amino terminal direction and the right-hand direction is the carboxyl-terminal direction, in accordance with standard usage and convention. Similarly, unless specified otherwise, the left hand end of single-stranded polynucleotide sequences is the 5' end; the left hand direction of double-stranded polynucleotide sequences is referred to as the 5' direction. The direction of 5' to 3' addition of nascent RNA transcripts is referred to as the transcription direction; sequence regions on the DNA strand having the same sequence as the RNA and which are 5' to the 5' end of the RNA transcript are referred to as "upstream sequences"; sequence regions on the DNA strand having the same sequence as the RNA and which are 3' to the 3' end of the RNA transcript are referred to as "downstream sequences".

The term "nucleic acids", as used herein, refers to either DNA or RNA. "Nucleic acid sequence" or "polynucleotide sequence" refers to a single- or double-stranded polymer of deoxyribonucleotide or ribonucleotide bases read from the 5' to the 3' end. It includes both self-replicating plasmids, infectious polymers of DNA or RNA and nonfunctional DNA or RNA. The complement of any nucleic acid sequence of the invention is understood to be included in the definition of that sequence.

"Nucleic acid probes" may be DNA or RNA fragments. DNA fragments can be prepared, for example, by digesting plasmid DNA, or by use of PCR, or synthesized by either the phosphoramidite method described by Beaucage and Carruthers, Tetrahedron Lett. 22:1859-1862 (1981), or by the triester method according to Matteucci, *et al.*, J. Am. Chem. Soc. 103:3185 (1981), both incorporated herein by reference. A double stranded fragment may then be obtained, if desired, by annealing the chemically synthesized single strands together under appropriate conditions or by synthesizing the complementary strand using DNA polymerase with an appropriate primer sequence. Where a specific sequence for a nucleic acid probe is given, it is understood that the complementary strand is also identified and included. The complementary strand will work equally well in situations where the target is a double-stranded nucleic acid.

The phrase "selectively hybridizing to" refers to a nucleic acid probe that hybridizes, duplexes or binds only to a particular target DNA or RNA sequence when the target sequences are present in a preparation of total cellular DNA or RNA. "Complementary" or "target" nucleic acid sequences refer to those nucleic acid sequences which selectively hybridize to a nucleic acid probe. Proper annealing conditions depend, for example, upon a probe's length, base composition, and the number of mismatches and their position on the probe, and must often be determined empirically. For

discussions of nucleic acid probe design and annealing conditions, see, for example, Sambrook *et al.*, Molecular Cloning: a Laboratory Manual (2nd ed.), Vols. 1-3, Cold Spring Harbor Laboratory, (1989) or Current Protocols in Molecular Biology, F. Ausubel *et al.*, ed. Greene Publishing and Wiley-Interscience, New York (1987).

The phrase "nucleic acid sequence encoding" refers to a nucleic acid which directs the expression of a specific protein or peptide. The nucleic acid sequences include both the DNA strand sequence that is transcribed into RNA and the RNA sequence that is translated into protein. The nucleic acid sequences include both the full length nucleic acid sequences as well as non-full length sequences derived from the full length protein. It being further understood that the sequence includes the degenerate codons of the native sequence or sequences which may be introduced to provide codon preference in a specific host cell.

The phrase "isolated" or "substantially pure" refers to nucleic acid preparations that lack at least one protein or nucleic acid normally associated with the nucleic acid in a host cell.

The phrase "expression cassette", refers to nucleotide sequences which are capable of affecting expression of a structural gene in hosts compatible with such sequences. Such cassettes include at least promoters and optionally, transcription termination signals. Additional factors necessary or helpful in effecting expression may also be used as described herein.

The term "operably linked" as used herein refers to linkage of a promoter upstream from a DNA sequence such that the promoter mediates transcription of the DNA sequence.

The term "vector", refers to viral expression systems, autonomous self-replicating circular DNA (plasmids), and includes both expression and nonexpression plasmids. Where a recombinant microorganism or cell culture is described as hosting an "expression vector," this includes both extrachromosomal circular DNA and DNA that has been incorporated into the host chromosome(s). Where a vector is being maintained by a host cell, the vector may either be stably replicated by the cells during mitosis as an autonomous structure, or is incorporated within the host's genome.

The term "gene" as used herein is intended to refer to a nucleic acid sequence which encodes a polypeptide. This definition includes various sequence polymorphisms, mutations, and/or sequence variants wherein such alterations do not affect the function of the gene product. The term "gene" is intended to include not only coding sequences but also regulatory regions such as promoters, enhancers, and termination regions. The term further includes all introns and other DNA sequences spliced from the mRNA transcript, along with variants resulting from alternative splice sites.

The term "plasmid" refers to an autonomous circular DNA molecule capable of replication in a cell, and includes both the expression and nonexpression types. Where a recombinant microorganism or cell culture is described as hosting an "expression plasmid", this includes both extrachromosomal circular DNA molecules and DNA that has been incorporated into the host chromosome(s). Where a plasmid is being maintained by a host cell, the plasmid is either being stably replicated by the cells during mitosis as an autonomous structure or is incorporated within the host's genome.

The phrase "recombinant protein" or "recombinantly produced protein" refers to a peptide or protein produced using non-native cells that do not have an endogenous copy of DNA able to express the protein. The cells produce the protein because they have been genetically altered by the introduction of the appropriate nucleic acid sequence. The recombinant protein will not be found in association with proteins and other subcellular components normally associated with the cells producing the protein. The terms "protein" and "polypeptide" are used interchangeably herein.

The following terms are used to describe the sequence relationships between two or more nucleic acids or polynucleotides: "reference sequence", "comparison window", "sequence identity", "percentage of sequence identity", and "substantial identity". A "reference sequence" is a defined sequence used as a basis for a sequence comparison; a reference sequence may be a subset of a larger sequence, for example, as a segment of a full-length cDNA or gene sequence given in a sequence listing, or may comprise a complete cDNA or gene sequence.

Optimal alignment of sequences for aligning a comparison window may, for example, be conducted by the local homology algorithm of Smith and Waterman Adv. Appl. Math. 2:482 (1981), by the homology alignment algorithm of Needleman and Wunsch J. Mol. Biol. 48:443 (1970), by the search for similarity method of Pearson and Lipman Proc. Natl. Acad. Sci. U.S.A. 85:2444 (1988), or by computerized implementations of these algorithms (for example, GAP, BESTFIT, FASTA, and TFASTA in the Wisconsin Genetics Software Package Release 7.0, Genetics Computer Group, 575 Science Dr., Madison, WI).

The terms "substantial identity" or "substantial sequence identity" as applied to nucleic acid sequences and as used herein and denote a characteristic of a polynucleotide sequence, wherein the polynucleotide comprises a sequence that has at least 85 percent sequence identity, preferably at least 90 to 95 percent sequence identity, and more preferably at least 99 percent sequence identity as compared to a reference sequence over a comparison window of at least 20 nucleotide positions, frequently over a window of at least 25-50 nucleotides, wherein the percentage of sequence identity is calculated by comparing the reference sequence to the polynucleotide sequence which may include deletions or additions which total 20 percent or less of the reference sequence over the window of comparison. The reference sequence may be a subset of a larger sequence.

As applied to polypeptides, the terms "substantial identity" or "substantial sequence identity" mean that two peptide sequences, when optimally aligned, such as by the programs GAP or BESTFIT using default gap weights, share at least 80 percent sequence identity, preferably at least 90 percent sequence identity, more preferably at least 95 percent sequence identity or more. "Percentage amino acid identity" or "percentage amino acid sequence identity" refers to a comparison of the amino acids of two polypeptides which, when optimally aligned, have approximately the designated percentage of the same amino acids. For example, "95% amino acid identity" refers to a comparison of the amino acids of two polypeptides which when optimally aligned have 95% amino acid identity. Preferably, residue positions which are not identical differ by conservative amino acid substitutions. For example, the substitution of amino acids having similar chemical properties such as charge or polarity are not likely to effect the properties of a protein. Examples include glutamine for asparagine or glutamic acid for aspartic acid.

The phrase "substantially purified" or "isolated" when referring to a peptide or protein, means a chemical composition which is essentially free of other cellular components. It is preferably in a homogeneous state although it can be in either a dry or aqueous solution. Purity and homogeneity are typically determined using analytical chemistry techniques such as polyacrylamide gel electrophoresis or high performance liquid chromatography. A protein which is the predominant species present in a preparation is substantially purified. Generally, a substantially purified or isolated protein will comprise more than 80% of all macromolecular species present in the preparation. Preferably, the protein is purified to represent greater than 90% of all macromolecular species present. More preferably the protein is purified to greater than 95%, and most preferably the protein is purified to essential homogeneity, wherein other macromolecular species are not detected by conventional techniques.

The phrase "specifically binds to an antibody" or "specifically immunoreactive with", when referring to a protein or peptide, refers to a binding reaction which is determinative of the presence of the protein in the presence of a heterogeneous population of proteins and other biologies. Thus, under designated immunoassay conditions, the specified antibodies bind to a particular protein and do not bind in a significant amount to other proteins present in the sample. Specific binding to an antibody under such conditions may require an antibody that is selected for its specificity for a particular protein. A variety of immunoassay formats may be used to select antibodies specifically immunoreactive with a particular protein. For example, solid-phase ELISA immunoassays are routinely used to select monoclonal antibodies specifically immunoreactive with a protein. See Harlow and Lane (1988) Antibodies, a Laboratory Manual, Cold Spring Harbor Publications, New York, for a description of immunoassay formats and conditions that can be used to determine specific immunoreactivity.

As used herein, "EST" or "Expressed Sequence Tag " refers to a partial DNA or cDNA sequence of about 150 to 500, more preferably about 300, sequential nucleotides of a longer sequence obtained from a genomic or cDNA library prepared from a selected cell, cell type, tissue or tissue type, or organisms which longer sequence corresponds to an mRNA or a gene found in that library. An EST is generally DNA. One or more libraries made from a single tissue type typically provide at least 3000 different (i.e. unique) EST's and potentially the full complement of all possible EST's representing all possible cDNAs, e.g., 50,000 - 100,000 in an animal such as a human. (See, for example, Adams *et al.* Science 252:1651-1656 (1991)).

"Stringent" as used herein refers to hybridization and wash conditions of 50% formamide at 42°C. Other stringent hybridization conditions may also be selected. Generally, stringent conditions are selected to be about 5° C lower than the thermal melting point (Tm) for the specific sequence at a defined ionic strength and pH. The Tm is the temperature (under defined ionic strength and pH) at which 50% of the target sequence hybridizes to a perfectly matched probe. Typically, stringent conditions will be those in which the salt concentration is at least about 0.02 molar at pH 7 and the temperature is at least about 60°C. As other factors may significantly affect the stringency of hybridization, including, among others, base composition and size of the complementary strands, the presence of organic solvents and the extent of base mismatching, the combination of parameters is more important than the absolute measure of any one.

B. Transcript Map and New Genes near HH

The instant invention provides a fine structure map of the 1 megabase region surrounding the HFE gene. As part of that map the instant invention provides approximately 250 kb of DNA sequence of which about 235 kb are provided in Figure 8 and eight loci of particular interest corresponding to candidate genes within the 1 megabase region. These loci are useful as genetic and physical markers for further mapping studies. Additionally, the eight cDNA sequences corresponding to those loci are useful, for example, for the isolation of other genes in putative gene families, the identification of homologs from other species, and as probes for diagnostic assays. In particular, isolated nucleic acid sequences of at least 18 nucleotides substantially identical to contiguous nucleotides of a cDNA of the invention are useful as PCR primers. Typically, the PCR primer will be used as part of a pair of primers in a PCR reaction. Isolated nucleic acid sequences preferably comprising about 18-100 nucleotides, more preferably at least 18 nucleotides, substantially identical to contiguous nucleotides in a cDNA of the invention are useful in the design of PCR primers and probes for hybridization assays. Additionally, the proteins encoded by those cDNAs are useful in the generation of antibodies for analysis of gene expression and in diagnostic assays, and in the purification of related proteins.

Thus, in one embodiment of the invention, a 235 kb sequence is provided for the HFE subregion within the 1 megabase region mapped. This sequence can serve as a reference in genetic or physical analysis of deletions, substitutions, and insertions in that region. Additionally, the sequence information provides a resource for the further identification of new genes in that region. Thus, nucleic acid sequences substantially identically to the 235 kb sequence are also included in the scope of this invention.

In a further embodiment of the invention, a family of five genes, BTF1-5, is provided which are related by sequence homology to the milk protein butyrophilin (BT) (Figures 1, 3, and 7). The predicted amino acid sequences of the proteins encoded by these genes are provided in Figure 3. These cDNAs are useful for the identification of further members of the BT family and to study regulation of expression of this family of genes. The proteins encoded by these cDNAs can be useful in the identification and isolation of ligands for the BT protein, and in the generation of agonists or antagonists of BT function. Nucleic acid sequences substantially identically to BTF1-5 and the proteins encoded by them are also included in the scope of this invention, including allelic forms.

In a further embodiment of the invention, a novel gene RoRet is provided, which is related by sequence homology to the 52 kD Ro/SSA Lupus and Sjogren's syndrome autoantigen. This sequence is especially useful in the identification of other genes that may be involved in Lupus or Sjorgen's syndrome. The protein encoded by this cDNA can be useful in the identification and isolation of ligands for the autoantigen, and in the generation of agonists or antagonists of the antigen. Nucleic acid sequences substantially identically to RoRet and the proteins encoded by them are also included in the scope of this invention.

In a further embodiment of the invention, two genes, NPT3 and NPT4, with structural homology to a type 1 sodium transport gene are provided. These cDNAs and the proteins expressed by them are useful in determining the etiology of hypophosphatemia, along with being useful as probes

in the identification and isolation of further members of the gene family. Nucleic acid sequences substantially identically to the NPT1-like sequences and the proteins encoded by them are also included in the scope of this invention.

C. Polymorphic Markers

The invention provides 397 new polymorphic sites in the region of the HFE gene. These polymorphisms are listed in Table 1. As described below, these polymorphisms were identified by comparison of the DNA sequence of an affected individual homozygous for the common ancestral HH mutation with that of an unaffected individual disclosed in copending U.S. 08/724,394.

Table 1. Polymorphic Sites in the HH Region

Base Location	Difference	Base Location	Difference
35-36	AC DEL	19755	G-A
841	T-C	19949	C-T
2662-2663	TT DEL	20085	C-T
3767	T-C	20366-20367	A INS
3829	C-G	20463	C-A
4925-4928	TAAA DEL	20841	A-T
5691	C-T	21059	A-T
5839	T-C	21117	A-G
6011	G-A	21837	A-C
6047	C-G	22293	A-C
6231	G-A	22786	C-A
6643	A DEL	23009	G-A
6698	T-C	24143	T-A
7186	T-C	26175	G-C
7273	G-A	26667	C-A
7545-7558	TCACACACCGATTGG DEL	26994	T-C
7672	G DEL	27838	G-T
7933	T-C	27861	T DEL
8746	T-G	28132	G-A
9115	G-A	29100	G-A
9823	G-A	29454-29457	TTTT DEL
10027	G-A	29787	T-G
10214	C-T	29825	A-C
10828	A-G	30009	T-C
10918	C-G	30177	A-G
10955	A-G	30400	A-G
11524	C-A	31059	T-A
11674	A-G	31280	C-T
11955	T-C	31749	C-T
12173-12175	TTT DEL	32040	C-G
13304	G-A	32556-32559	TGTG DEL
13455	G-A	33017	T-G
14416-14417	A INS	33026	T DEL
14998	C-T	34434	C-T
15564	T-C	35179	A-C
15887	A-G	35695	G-A
15904-15919	CCAAACTGATCTTTGA DEL	35702	G-A
16019	T DEL	35983	A-G
16211	A-T	37411	A-G
17461	A-G	38526	C-T

Base Location	Difference	Base Location	Difference
40431	C-A	72688	C-G
42054-42055	TT DEL	75323-75324	T INS
43783-43784	TTTT INS	75887	G-C
45120	C DEL	77519	T-C
45567	A-C	77749	G-A
46601	A-T	77908	T-C
47255	C-G	78385	C-G
47758	C-A	78592-78593	AG INS
47994	G-C	80189	T-G
48440	G-A	80279	T DEL
48650	T-G	80989-80990	A INS
48680	A-G	81193	T-C
50240	C-T	81273	A DEL
50553	G-A	82166	G-A
50586	G-T	83847	T DEL
51322	G-C	84161-84162	CA-GG
51747	A-G	84533	A-G
52474	C-G	84638	T-G
52733	C-A	85526	T-G
52875	G-A	85705	G-T
53631-53637	TTTTTTT DEL	86984	T-C
53707	G-A	87655	T-C
54819	A-G	87713	A-C
55913	T-C	87892	C-T
56225	A-C	88192	T DEL
56510	T-C	88528	A-G
56566	G-A	89645	A-T
56618	A-T	89728	A-G
57815	A-G	90088	T-C
58011	T DEL	91193-91194	2209bp INS
58247-58248	T INS	91373	T-C
58926	C-G	91433-91434	A INS
59406	C-G	91747	G-A
59422	G-C	93625	T DEL
60221-60222	A INS	95116-95117	T INS
60656-60657	CA DEL	96315	G-A
61162	G-A	97981	A-G
61465	G-A	98351	T DEL
61607	A DEL	99249	C-T
61653	T-C	100094-100095	T INS
61794-61795	T INS	100647-100648	TTC INS
62061	G-C	100951	C-T
62362	T-G	101610	C-G
62732	C-G	102589	C-T
63364	G-A	103076-103077	TATATATATATATA INS
63430-63431	GT INS	103747	T-C
63754	C-T	105638	A-C
63785	A-C	107024	C-T
63870-63871	A INS	107322	C-T
64788	A-G	107858	C-G
64962	G-A	109019	A DEL
65891	C-T	109579	T DEL
66675	G-C	110021	C-A
67186-67187	ATT INS	111251	C-A
67746-67747	TT INS	111425	G-A
68259	T-C	112644	T-A
68836	T-C	113001	G-C
68976	C-G	113130	C-T
72508	T-G	114026	G-A

Base Location	Difference	Base Location	Difference
114250	A DEL	176222	T-C
115217	C-G	176524	A-T
117995	G-A	176684	G-A
118874	A-G	176815	T-C
119470	T-C	177049	T-C
119646	G-T	177065	G-T
120853	C-T	178285	T-C
121582	G-A	178551-178552	CTTTTTTTTTTTTT INS
123576	A-C	179114-179115	A INS
125581	C-T	179260	C-G
125970	G-T	179281	C-G
126197	A-G	180023	G-C
126672	A DEL	180430	T-C
126672	G-C	180773	T-C
128220-128221	A INS	180824	T-C
132569	C-T	181097	C-T
133572	A-C	181183	A-T
134064	T-G	182351	C-T
136999	G-A	183197	G-A
137784	C-T	183623	A-T
138903	G-A	183653	G-T
139159-139160	A INS	183657	T-G
140359	G-A	183795-183796	A INS
140898	C-T	184060	G-A
141313	C DEL	184993	G-A
141343	T-C	185918	A-G
142148	T-C	186036	T-C
142178	C-A	186506-186507	TAAC INS
142433-142434	ATAGA INS	186561-186568	TATTTATT DEL
143783	C-T	186690	G DEL
144090	C-T	186751	T-A
144220-144221	A INS	187221	A-G
144725	A-C	187260	A-G
145732-145733	AAAAAAAAAAAAAA INS	187444-187447	CTCT DEL
147016-147017	CG DEL	187831-187832	C INS
147021	G-T	188638	G-A
147536	T-G	188642	C-T
148936	T-A	189246	T-C
149061	T-C	190340	A-C
154341	A-T	190354	A-G
154588	G-A	190762	A-G
155464	G-A	191260	G-T
158574	C-G	193018-193019	AGAT INS
160007	C-T	193147	T-G
164348	A-T	193196-193197	C INS
164499	C-G	193499	C-T
166677-166678	AAAG INS	193738	C-G
167389	G-A	193984-193985	ACACACAC INS
168506-168507	AGGATGGTCT INS	194064	C-G
168515	T-C	194504	A DEL
169413-169414	AA INS	194734	G-A
170300-170301	TTGTTGTTGTTG INS	194890	A-C
170491	G-A	195404	G-A
173428	T-C	195693	A-T
173642	G-A	196205	G-A
173948	T-G	197424	C-T
175330	T-C	197513	C-T
175836	T-C	197670	G-A
176200	G-C	198055	C-A

Base Location	Difference	Base Location	Difference
198401	C-T	215947	C-A
198692	A-G	216232	A-G
198780	T DEL	217478	G-A
199030	T-G	219052	T-C
199933	C-T	219082-219083	ATATATATATATATATATAT INS
200027	G-A	219314	C-A
200439	T-A	219327	G-A
200452	A-G	219560	C-T
200472-200483	AATAATAATAAT DEL	219660	C-T
200559	A-T	219889	G-A
200745	A-G	220198	G-T
200919	T-A	220384	G-A
201816	C-T	220451-220452	CAAAAA INS
201861-201862	42bp INS	221363	G-A
202662	T-C	221645	G-A
202880	T-C	222119	T-C
204341	C-T	222358	A-G
204768	A-T	222367	A-C
205284	T-G	222686	A-G
207400	C-A	222959	T-C
208634	T-C	223270-223271	TT DEL
208718	T DEL	223283	T-C
208862	A-C	224964	T-C
209419-209420	TT DEL	225232	A-C
209802	G-A	225366-225367	TTTT INS
209944	C-G	225416	G-C
210299	A-G	225486	T-C
211142	G-A	226088	A-G
212072	G-A	228421	A-G
212146	T-C	230047	G-A
212379	G-A	230109	G-C
212637-212639	TCT DEL	230376	C-G
212696	T-C	230394	A-G
213042	T-A	231226	A-G
214192	A-G	231447	G-A
214529-214530	TTTTTTTTTTT INS	231835	A-G
214549	T-C	232400-232402	AAA DEL
214795	C-T	232402-232403	G INS
214908	T-G	232515	T-C
214977	A-G	232703	G-T
215769	C-T	232750	A-G

* D6S2238 occurs at base 1. 24d1 occurs at base 41316. D6S2239 occurs at base 84841. D6S2241 occurs at base 235032

Table 2. Polymorphic Allele Frequencies

Location	Frequency of ancestral variant in random chromosomes	Frequency of unaffected variant in random chromosomes
232703	53%	47%
231835	53%	47%
230394	85%	15%
230376	25%	75%
230109	53%	47%
225486	45%	55%
225416	75%	25%
220198	43%	57%
219660	58%	42%

Location	Frequency of ancestral variant in random chromosomes	Frequency of unaffected variant in random chromosomes
219560	53%	47%
214977	65%	35%
214908	50%	50%
214795	24%	76%
214549	53%	47%
214192	65%	35%
210299	53%	47%
208862	80%	20%
208634	48%	52%
207400	25%	75%
205284	50%	50%
204341	53%	47%
202880	58%	42%
202662	98%	2%
200027	25%	75%
199030	58%	42%
198692	55%	45%
198401	55%	45%
198055	55%	45%
195693	60%	40%
195404	25%	75%
194890	55%	45%
175330	53%	47%
173948	83%	17%
173642	55%	45%
173428	80%	20%
168515	80%	20%
160007	18%	82%
149061	58%	42%
148936	82%	18%
147536	100%	0%
147021	46%	54%
141343	55%	45%
140359	55%	45%
138903	55%	45%
132569	81%	19%
125581	18%	82%
121582	80%	20%
120853	18%	82%
118874	85%	15%
115217	50%	50%
113130	40%	60%
113001	48%	52%
107858	48%	52%
103747	50%	50%
96315	25%	75%
91194	80%	20%
90088	75%	25%
89728	50%	50%
89645	50%	50%
88528	63%	37%
87892	75%	25%
87713	60%	40%
87655	50%	50%
86984	79%	21%
85705	50%	50%
85526	50%	50%

Location	Frequency of ancestral variant in random chromosomes	Frequency of unaffected variant in random chromosomes
84638	50%	50%
84533	50%	50%
82166	78%	22%
81193	58%	42%
80189	50%	50%
78385	80%	20%
77908	88%	12%
68976	50%	50%
68259	51%	49%
66675	80%	20%
62732	50%	50%
62362	40%	60%
61653	48%	52%
61465	5%	95%
61162	60%	40%
53707	100%	0%
52875	50%	50%
52733	74%	26%
52474	47%	53%
50586	50%	50%
50553	50%	50%
50240	50%	50%
48680	53%	47%
48650	63%	37%
48440	50%	50%
47255	50%	50%
46601	53%	47%
45567	49%	51%
41316	5%	95%
40431	20%	80%
38526	23%	77%
37411	70%	30%
35983	5%	95%

These polymorphisms provide surrogate markers for use in diagnostic assays to detect the likely presence of the mutations 24d1 and/or 24d2, in preferably 24d1, in homozygotes or heterozygotes. Thus, for example, DNA or RNA from an individual is assessed for the presence or absence of a genotype defined by a polymorphic allele of Table 1, wherein, as a result, the absence of a genotype defined by a polymorphic allele of Table 1 indicates the likely absence of the HFE gene mutation in the genome of the individual and the presence of the genotype indicates the likely presence of the HFE gene mutation in the genome of the individual.

These markers may be used singly, in combination with each other, or with other polymorphic markers (such as those disclosed in co-pending PCT application WO 96/06583) in diagnostic assays for the likely presence of the HFE gene mutation in an individual. For example, any of the markers defined by the polymorphic sites of Table 1 can be used in diagnostic assays in combination with 24d1 or 24d2, or at least one of polymorphisms HHP-1, HHP-19, or HHP-29, or microsatellite repeat alleles 19D9:205; 18B4:235; 1A2:239; 1E4:271; 24E2:245; 2B8:206; 3321-1:98; 4073-1:182; 4440-1:180; 4440-2:139; 731-1:177; 5091-1:148; 3216-1:221; 4072-2:170; 950-1:142; 950-2:164; 950-3:165; 950-4:128; 950-6:151; 950-8:137; 63-1:151; 63-2:113; 63-3:169; 65-1:206; 65-

2:159; 68-1:167; 241-5:108; 241-29:113; 373-8:151; and 373-29:113, D6S258:199, D6S265:122, D6S105:124; D6S306:238; D6S464:206; and D6S1001:180.

Table 2 lists the frequency of about 100 of the alleles defined by the polymorphic sites of the invention in the general population. As is evident from the Table, certain of these alleles are present rarely in the general population. These polymorphisms are thus preferred as surrogate markers in diagnostic assays for the presence of a mutant HFE allele ("gene mutation") such as 24d1 or 24d2. Preferably, the frequency of the polymorphic allele used in the diagnostic assay in the general population is less than about 50%, more preferably less than about 25%, and most preferably less than about 5%. Thus, of the genotypes defined by the alleles listed in Table 2, polymorphisms occurring at base 35983 and base 61465 of Figure 1 are preferred.

It will be understood by those of skill in the art that because they were identified in an ancestral HH homozygote, the haplotypes defined by the polymorphic sites of Table 1 are predictive of the likely presence of the HFE gene mutation 24d1. Thus, for example, the likelihood of any affected individual having at least two or more of any of the polymorphic alleles defined by Table 1 is greater than that for any unaffected individual. Similarly, the likelihood of any affected individual having at least three or more of any of the polymorphic alleles defined by Table 1 is greater than that for any unaffected individual.

Thus, for example, in a diagnostic assay for the likely presence of the HFE gene mutation in the genome of the individual, DNA or RNA from the individual is assessed for the presence or absence of a haplotype of Table 1, wherein, as a result, the absence of a haplotype of Table 1 indicates the likely absence of the HFE gene mutation in the genome of the individual and the presence of the haplotype indicates the likely presence of the HFE gene mutation in the genome of the individual.

The markers defined by the polymorphic sites of Table 1 are additionally useful as markers for genetic analysis of the inheritance of certain HFE alleles and other genes which occur within the chromosomal region corresponding to the sequence of Figure 9 which include, for example, those disclosed in copending U.S.S.N. 08/724,394.

As the entire nucleotide sequence of the region is provided in Figure 9, it will be evident to those of ordinary skill in the art which sequences to use as primers or probes for detecting each polymorphism of interest. Thus, in some embodiments of the invention, the nucleotide sequences of the invention include at least one oligonucleotide pair selected from the sequence of Figure 9 or its complement for amplification of a polymorphic site of Table 1. Furthermore, in some embodiments of the invention a preferred hybridization probe is an oligonucleotide comprising at least 8 to about 100 consecutive bases from the sequence of Figure 9, or the complement of the sequence, wherein the at least 8 to about 100 consecutive bases includes at least one polymorphic site of Table 1. In some embodiments the polymorphic site is at base 35983 or base 61465.

It will also be appreciated that the nucleic acid sequences of the invention include isolated nucleic acid molecules comprising about 100 consecutive bases to about 235 kb substantially identical to the sequence of Figure 9, wherein the DNA molecule comprises at least one polymorphic

site of Table 1. Such isolated DNA sequences are useful as primers, probes, or as the component of a kit in diagnostic assays for detecting the likely presence of the HFE gene mutation in an individual.

D. Nucleic Acid Based Screening

Individuals carrying polymorphic alleles of the invention may be detected at either the DNA, the RNA, or the protein level using a variety of techniques that are well known in the art. The genomic DNA used for the diagnosis may be obtained from body cells, such as those present in peripheral blood, urine, saliva, bucca, surgical specimen, and autopsy specimens. The DNA may be used directly or may be amplified enzymatically *in vitro* through use of PCR (Saiki et al. Science 239:487-491 (1988)) or other *in vitro* amplification methods such as the ligase chain reaction (LCR) (Wu and Wallace Genomics 4:560-569 (1989)), strand displacement amplification (SDA) (Walker et al. Proc. Natl. Acad. Sci. U.S.A. 89:392-396 (1992)), self-sustained sequence replication (3SR) (Fahy et al. PCR Methods Appl. 1:25-33 (1992)), prior to mutation analysis. The methodology for preparing nucleic acids in a form that is suitable for mutation detection is well known in the art.

The detection of polymorphisms in specific DNA sequences, such as in the region of the HFE gene, can be accomplished by a variety of methods including, but not limited to, restriction-fragment-length-polymorphism detection based on allele-specific restriction-endonuclease cleavage (Kan and Dozy Lancet ii:910-912 (1978)), hybridization with allele-specific oligonucleotide probes (Wallace et al. Nucl Acids Res 6:3543-3557 (1978)), including immobilized oligonucleotides (Saiki et al. Proc. Natl. Acad. Sci. U.S.A. 86:6230-6234 (1989)) or oligonucleotide arrays (Maskos and Southern Nucl Acids Res 21:2269-2270 (1993)), allele-specific PCR (Newton et al. Nucl Acids Res 17:2503-2516 (1989)), mismatch-repair detection (MRD) (Faham and Cox Genome Res 5:474-482 (1995)), binding of MutS protein (Wagner et al. Nucl Acids Res 23:3944-3948 (1995), denaturing-gradient gel electrophoresis (DGGE) (Fisher and Lerman et al. *Proc. Natl. Acad. Sci. U.S.A.* 80:1579-1583 (1983)), single-strand-conformation-polymorphism detection (Orita et al. Genomics 5:874-879 (1983)), RNAase cleavage at mismatched base-pairs (Myers et al. Science 230:1242 (1985)), chemical (Cotton et al. Proc. Natl. Acad. Sci. U.S.A. 85:4397-4401 (1988)) or enzymatic (Youil et al. Proc. Natl. Acad. Sci. U.S.A. 92:87-91 (1995)) cleavage of heteroduplex DNA, methods based on allele specific primer extension (Syvänen et al. Genomics 8:684-692 (1990)), genetic bit analysis (GBA) (Nikiforov et al. Nucl Acids Res 22:4167-4175 (1994)), the oligonucleotide-ligation assay (OLA) (Landegren et al. Science 241:1077 (1988)), the allele-specific ligation chain reaction (LCR) (Barrany Proc. Natl. Acad. Sci. U.S.A. 88:189-193 (1991)), gap-LCR (Abravaya et al. Nucl Acids Res 23:675-682 (1995)), radioactive and/or fluorescent DNA sequencing using standard procedures well known in the art, and peptide nucleic acid (PNA) assays (Orum et al., Nucl. Acids Res. 21:5332-5356 (1993); Thiede et al., Nucl. Acids Res. 24:983-984 (1996)).

In addition to the genotypes defined by the polymorphisms of the invention, as described in co-pending PCT application WO 96/35802 published November 14, 1996, genotypes characterized by the presence of the alleles 19D9:205; 18B4:235; 1A2:239; 1E4:271; 24E2:245; 2B8:206; 3321-1:98 (denoted 3321-1:197 therein); 4073-1:182; 4440-1:180; 4440-2:139; 731-1:177; 5091-1:148; 3216-1:221; 4072-2:170 (denoted 4072-2:148 therein); 950-1:142; 950-2:164; 950-3:165; 950-4:128; 950-6:151; 950-8:137; 63-1:151; 63-2:113; 63-3:169; 65-1:206; 65-2:159; 68-1:167; 241-

5:108; 241-29:113; 373-8:151; and 373-29:113, alleles D6S258:199, D6S265:122, D6S105:124, D6S306:238, D6S464:206; and D6S1001:180, and/or alleles associates with the HHP-1, the HHP-19 or HHP-29 single base-pair polymorphisms can also be used to assist in the identification of an individual whose genome contains 24d1 and/or 24d2. For example, the assessing step can be performed by a process which comprises subjecting the DNA or RNA to amplification using oligonucleotide primers flanking a polymorphism of Table 1, and oligonucleotides flanking 24d1 and/or 24d2, oligonucleotide primers flanking at least one of the base-pair polymorphisms HHP-1, HHP-19, and HHP-29, oligonucleotide primers flanking at least one of the microsatellite repeat alleles, or oligonucleotide primers for any combination of polymorphisms or microsatellite repeat alleles thereof.

Oligonucleotides useful in diagnostic assays are typically at least 8 consecutive nucleotides in length, and may range upwards of 18 nucleotides in length to greater than 100 or more consecutive nucleotides. Such oligonucleotides can be derived from either the genomic DNA of Figure 8 or 9, or cDNA sequences derived therefrom, or may be synthesized.

Additionally, the proteins encoded by such cDNAs are useful in the generation of antibodies for analysis of gene expression and in diagnostic assays, and in the purification of related proteins.

E. General Methods

The nucleic acid compositions of this invention, whether RNA, cDNA, genomic DNA, or a hybrid of the various combinations, may be isolated from natural sources, including cloned DNA, or may be synthesized *in vitro*. The nucleic acids claimed may be present in transformed or transfected whole cells, in a transformed or transfected cell lysate, or in a partially purified or substantially pure form.

Techniques for nucleic acid manipulation of the nucleic acid sequences of the invention such as subcloning nucleic acid sequences encoding polypeptides into expression vectors, labeling probes, DNA hybridization, and the like are described generally in Sambrook *et al.*, Molecular Cloning - a Laboratory Manual (2nd Ed.), Vol. 1-3, Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, (1989), which is incorporated herein by reference. This manual is hereinafter referred to as "Sambrook *et al.*"

There are various methods of isolating the nucleic acid sequences of the invention. For example, DNA is isolated from a genomic or cDNA library using labeled oligonucleotide probes having sequences complementary to the sequences disclosed herein. Such probes can be used directly in hybridization assays. Alternatively probes can be designed for use in amplification techniques such as PCR.

To prepare a cDNA library, mRNA is isolated from tissue such as heart or pancreas, preferably a tissue wherein expression of the gene or gene family is likely to occur. cDNA is prepared from the mRNA and ligated into a recombinant vector. The vector is transfected into a recombinant host for propagation, screening and cloning. Methods for making and screening cDNA libraries are well known. See Gubler, U. and Hoffman, B.J. Gene 25:263-269 (1983) and Sambrook *et al.*

For a genomic library, for example, the DNA is extracted from tissue and either mechanically sheared or enzymatically digested to yield fragments of about 12-20 kb. The fragments

are then separated by gradient centrifugation from undesired sizes and are constructed in bacteriophage lambda vectors. These vectors and phage are packaged *in vitro*, as described in Sambrook, *et al.* Recombinant phage are analyzed by plaque hybridization as described in Benton and Davis, Science 196:180-182 (1977). Colony hybridization is carried out as generally described in M. Grunstein *et al.* Proc. Natl. Acad. Sci. USA, 72:3961-3965 (1975).

DNA of interest is identified in either cDNA or genomic libraries by its ability to hybridize with nucleic acid probes, for example on Southern blots, and these DNA regions are isolated by standard methods familiar to those of skill in the art. *See* Sambrook, *et al.*

In PCR techniques, oligonucleotide primers complementary to the two 3' borders of the DNA region to be amplified are synthesized. The polymerase chain reaction is then carried out using the two primers. See PCR Protocols: a Guide to Methods and Applications (Innis, M, Gelfand, D., Sninsky, J. and White, T., eds.), Academic Press, San Diego (1990). Primers can be selected to amplify the entire regions encoding a full-length sequence of interest or to amplify smaller DNA segments as desired.

PCR can be used in a variety of protocols to isolate cDNA's encoding a sequence of interest. In these protocols, appropriate primers and probes for amplifying DNA encoding a sequence of interest are generated from analysis of the DNA sequences listed herein. Once such regions are PCR-amplified, they can be sequenced and oligonucleotide probes can be prepared from sequence obtained.

Oligonucleotides for use as primers or probes are chemically synthesized according to the solid phase phosphoramidite triester method first described by Beaucage, S.L. and Carruthers, M.H., Tetrahedron Lett., 22(20):1859-1862 (1981) using an automated synthesizer, as described in Needham-VanDevanter, D.R., *et al.*, Nucleic Acids Res. 12:6159-6168 (1984). Purification of oligonucleotides is by either native acrylamide gel electrophoresis or by anion-exchange HPLC as described in Pearson, J.D. and Regnier, F.E., J. Chrom., 255:137-149 (1983). The sequence of the synthetic oligonucleotide can be verified using the chemical degradation method of Maxam, A.M. and Gilbert, W., in Grossman, L. and Moldave, D., eds. Academic Press, New York, Methods in Enzymology 65:499-560 (1980).

1. Expression

Once DNA encoding a sequence of interest is isolated and cloned, one can express the encoded proteins in a variety of recombinantly engineered cells. It is expected that those of skill in the art are knowledgeable in the numerous expression systems available for expression of DNA encoding a sequence of interest. No attempt to describe in detail the various methods known for the expression of proteins in prokaryotes or eukaryotes is made here.

In brief summary, the expression of natural or synthetic nucleic acids encoding a sequence of interest will typically be achieved by operably linking the DNA or cDNA to a promoter (which is either constitutive or inducible), followed by incorporation into an expression vector. The vectors can be suitable for replication and integration in either prokaryotes or eukaryotes. Typical expression vectors contain transcription and translation terminators, initiation sequences, and promoters useful for regulation of the expression of polynucleotide sequence of interest. To obtain

high level expression of a cloned gene, it is desirable to construct expression plasmids which contain, at the minimum, a strong promoter to direct transcription, a ribosome binding site for translational initiation, and a transcription/translation terminator. The expression vectors may also comprise generic expression cassettes containing at least one independent terminator sequence, sequences permitting replication of the plasmid in both eukaryotes and prokaryotes, *i.e.*, shuttle vectors, and selection markers for both prokaryotic and eukaryotic systems. *See* Sambrook *et al.* Examples of expression of ATP-sensitive potassium channel proteins in both prokaryotic and eukaryotic systems are described below.

a. **Expression in Prokaryotes**

A variety of procaryotic expression systems may be used to express the proteins of the invention. Examples include *E. coli*, *Bacillus*, *Streptomyces*, and the like.

It is preferred to construct expression plasmids which contain, at the minimum, a strong promoter to direct transcription, a ribosome binding site for translational initiation, and a transcription/translation terminator. Examples of regulatory regions suitable for this purpose in *E. coli* are the promoter and operator region of the *E. coli* tryptophan biosynthetic pathway as described by Yanofsky, C., J. Bacteriol. 158:1018-1024 (1984) and the leftward promoter of phage lambda (Pλ) as described by Herskowitz, I. and Hagen, D., Ann. Rev. Genet. 14:399-445 (1980). The inclusion of selection markers in DNA vectors transformed in *E. coli* is also useful. Examples of such markers include genes specifying resistance to ampicillin, tetracycline, or chloramphenicol. *See* Sambrook *et al.* for details concerning selection markers for use in *E. coli*.

To enhance proper folding of the expressed recombinant protein, during purification from *E. coli*, the expressed protein may first be denatured and then renatured. This can be accomplished by solubilizing the bacterially produced proteins in a chaotropic agent such as guanidine HCl and reducing all the cysteine residues with a reducing agent such as beta-mercaptoethanol. The protein is then renatured, either by slow dialysis or by gel filtration. *See* U.S. Patent No. 4,511,503.

Detection of the expressed antigen is achieved by methods known in the art as radioimmunoassay, or Western blotting techniques or immunoprecipitation. Purification from *E. coli* can be achieved following procedures such as those described in U.S. Patent No. 4,511,503.

b. **Expression in Eukaryotes**

A variety of eukaryotic expression systems such as yeast, insect cell lines, bird, fish, and mammalian cells, are known to those of skill in the art. As explained briefly below, a sequence of interest may be expressed in these eukaryotic systems.

Synthesis of heterologous proteins in yeast is well known. Methods in Yeast Genetics, Sherman, F., *et al.*, Cold Spring Harbor Laboratory, (1982) is a well recognized work describing the various methods available to produce the protein in yeast.

Suitable vectors usually have expression control sequences, such as promoters, including 3-phosphoglycerate kinase or other glycolytic enzymes, and an origin of replication, termination sequences and the like as desired. For instance, suitable vectors are described in the literature (Botstein, *et al.*, Gene 8:17-24 (1979); Broach, *et al.*, Gene 8:121-133 (1979)).

Two procedures are used in transforming yeast cells. In one case, yeast cells are first converted into protoplasts using zymolyase, lyticase or glusulase, followed by addition of DNA and polyethylene glycol (PEG). The PEG-treated protoplasts are then regenerated in a 3% agar medium under selective conditions. Details of this procedure are given in the papers by J.D. Beggs, Nature (London) 275:104-109 (1978); and Hinnen, a., *et al.*, Proc. Natl. Acad. Sci. U.S.A. 75:1929-1933 (1978). The second procedure does not involve removal of the cell wall. Instead the cells are treated with lithium chloride or acetate and PEG and put on selective plates (Ito, H., *et al.*, J. Bact. 153:163-168 (1983)).

The proteins of the invention, once expressed, can be isolated from yeast by lysing the cells and applying standard protein isolation techniques to the lysates. The monitoring of the purification process can be accomplished by using Western blot techniques or radioimmunoassay or other standard immunoassay techniques.

The sequences encoding the proteins of the invention can also be ligated to various expression vectors for use in transforming cell cultures of, for instance, mammalian, insect, bird or fish origin. Illustrative of cell cultures useful for the production of the polypeptides are mammalian cells. Mammalian cell systems often will be in the form of monolayers of cells although mammalian cell suspensions may also be used. A number of suitable host cell lines capable of expressing intact proteins have been developed in the art, and include the HEK293, BHK21, and CHO cell lines, and various human cells such as COS cell lines, HeLa cells, myeloma cell lines, Jurkat cells, etc. Expression vectors for these cells can include expression control sequences, such as an origin of replication, a promoter (*e.g.*, the CMV promoter, a HSV *tk* promoter or *pgk* (phosphoglycerate kinase) promoter), an enhancer (Queen *et al.* Immunol. Rev. 89:49 (1986)), and necessary processing information sites, such as ribosome binding sites, RNA splice sites, polyadenylation sites (*e.g.*, an SV40 large T Ag poly A addition site), and transcriptional terminator sequences. Other animal cells useful for production of ATP-sensitive potassium channel proteins are available, for instance, from the American Type Culture Collection Catalogue of Cell Lines and Hybridomas (7th edition, (1992)).

Appropriate vectors for expressing the proteins of the invention in insect cells are usually derived from the SF9 baculovirus. Suitable insect cell lines include mosquito larvae, silkworm, armyworm, moth and *Drosophila* cell lines such as a Schneider cell line (*See* Schneider J. Embryol. Exp. Morphol. 27:353-365 (1987).

As indicated above, the vector, *e.g.*, a plasmid, which is used to transform the host cell, preferably contains DNA sequences to initiate transcription and sequences to control the translation of the protein. These sequences are referred to as expression control sequences.

As with yeast, when higher animal host cells are employed, polyadenylation or transcription terminator sequences from known mammalian genes need to be incorporated into the vector. An example of a terminator sequence is the polyadenylation sequence from the bovine growth hormone gene. Sequences for accurate splicing of the transcript may also be included. An example of a splicing sequence is the VP1 intron from SV40 (Sprague, J. *et al.*, J. Virol. 45: 773-781 (1983)).

Additionally, gene sequences to control replication in the host cell may be incorporated into the vector such as those found in bovine papilloma virus type-vectors.

Saveria-Campo, M., 1985, "Bovine Papilloma virus DNA a Eukaryotic Cloning Vector" in DNA Cloning Vol. II a Practical Approach Ed. D.M. Glover, IRL Press, Arlington, Virginia pp. 213-238.

The host cells are competent or rendered competent for transformation by various means. There are several well-known methods of introducing DNA into animal cells. These include: calcium phosphate precipitation, fusion of the recipient cells with bacterial protoplasts containing the DNA, treatment of the recipient cells with liposomes containing the DNA, DEAE dextran, electroporation and micro-injection of the DNA directly into the cells.

The transformed cells are cultured by means well known in the art (Biochemical Methods in Cell Culture and Virology, Kuchler, R.J., Dowden, Hutchinson and Ross, Inc., (1977)). The expressed polypeptides are isolated from cells grown as suspensions or as monolayers. The latter are recovered by well known mechanical, chemical or enzymatic means.

2. Purification

The proteins produced by recombinant DNA technology may be purified by standard techniques well known to those of skill in the art. Recombinantly produced proteins can be directly expressed or expressed as a fusion protein. The protein is then purified by a combination of cell lysis (*e.g.*, sonication) and affinity chromatography. For fusion products, subsequent digestion of the fusion protein with an appropriate proteolytic enzyme releases the desired polypeptide.

The polypeptides of this invention may be purified to substantial purity by standard techniques well known in the art, including selective precipitation with such substances as ammonium sulfate, column chromatography, immunopurification methods, and others. *See*, for instance, R. Scopes, Protein Purification: Principles and Practice, Springer-Verlag: New York (1982), incorporated herein by reference. For example, in an embodiment, antibodies may be raised to the proteins of the invention as described herein. Cell membranes are isolated from a cell line expressing the recombinant protein, the protein is extracted from the membranes and immunoprecipitated. The proteins may then be further purified by standard protein chemistry techniques as described above.

3. Antibodies

As mentioned above, antibodies can also be used for the screening of polypeptide products encoded by the polymorphic nucleic acids of the invention. In addition, antibodies are useful in a variety of other contexts in accordance with the present invention. Such antibodies can be utilized for the diagnosis of HH and, in certain applications, targeting of affected tissues.

Thus, in accordance with another aspect of the present invention a kit is provided that is suitable for use in screening and assaying for the presence of polypeptide products encoded by the polymorphic nucleic acids of the invention by an immunoassay through use of an antibody which specifically binds to polypeptide products encoded by the polymorphic nucleic acids of the invention in combination with a reagent for detecting the binding of the antibody to the gene product.

Once hybridoma cell lines are prepared, monoclonal antibodies can be made through conventional techniques of priming mice with pristane and interperitoneally injecting such mice with the hybrid cells to enable harvesting of the monoclonal antibodies from ascites fluid.

In connection with synthetic and semi-synthetic antibodies, such terms are intended to cover antibody fragments, isotype switched antibodies, humanized antibodies (mouse-human, human-

mouse, and the like), hybrids, antibodies having plural specificities, fully synthetic antibody-like molecules, and the like.

This invention also embraces diagnostic kits for detecting DNA or RNA comprising a polymorphism of Table 1 in tissue or blood samples which comprise nucleic acid probes as described herein and instructional material. The kit may also contain additional components such as labeled compounds, as described herein, for identification of duplexed nucleic acids.

The following examples are provided to illustrate the invention but not to limit its scope. Other variants of the invention will be readily apparent to one of ordinary skill in the art and are encompassed by the appended claims.

F. EXPERIMENTAL EXAMPLES

1. Megabase transcript map

In these studies direct selection, exon-trapping, and genomic sample sequencing were used to generate a transcript map of a 1 megabase region approximately 8.5 megabases telomeric to HLA-A in the vicinity of HFE. This region 6p21.3 was flanked by the genetic markers D6S2242 and D6S2241. The starting material for these experiments was a 1 megabase YAC labeled y899g1 and a bacterial clone contig of this region (Feder *et al.* Nature Genetics 13:399-408 (1996)). These techniques and other methods used in the study are outlined below.

a. Direct Selection (DS)

Poly A$^+$ RNA from human fetal brain, liver and small intestine (Clontech, Palo Alto, CA) were converted into cDNA using random primers and a Superscript cDNA synthesis kit (Life Technologies, Gaithersburg, MD). The cDNA was digested with Mbo I and ligated to cDNA Mbo I linker-adaptors. Unligated linker-adaptor were removed by passage through cDNA spun columns (Pharmacia, Piscataway, NJ). The 5 ng of each of the ligated cDNAs were amplified using the cDNA Mbo I-S primer (5'-CCTGATGCTCGAGTGAATTC-3'). The amplified products were purified on S-400 spin columns (Pharmacia, Piscataway, NJ), ethanol precipitated and resuspended at 1mg/ml in TE. Gel-purified yac899g1 (Centre d'Etude du Polymorphisme Humain) was processed as described by Morgan *et al.* (Nucl. Acids Res. 20:5173-5179 (1992)). The cDNAs were mixed in equal molar amounts for a total of 3 mg, and blocked with a mixture of 4 mg Cot-1 DNA (Life Technologies, Gaithersburg, MD), and a cocktail of Sau 3A-digested ribosomal and five different histone DNAs. The blocked cDNAs were hybridized to biotinylated yac899g1 DNA and streptavidin capture was carried out as described by Morgan *et al.* (ibid). After the second round of selection, the eluted cDNAs were amplified using the cDNA Mbo I-S primer which included a (CUA)4 repeat at the 5' end to facilitate cloning into a version of pSP72 (Promega, Madison, WI) constructed for use with uracil-DNA glycolyase cloning (UDG, Life Technologies, Gaithersburg, MD). Recombinants were transformed in DH5α, 1000 clones picked into a 96 well format, and clones prepped for DNA sequencing using AGTC boiling 96-well mini-prep system (Advance Genetic Technologies, Gaitherburg, MD).

Four hundred and sixty five clones were sequenced and the resulting data searched by BLAST (Altschul *et al.* J. Mol. Biol. 215:403-410 (1990)). Those clones representing repetitive, bacterial, yeast, mitochondrial and histone sequences were eliminated from future considerations. The remaining sequences were then searched for overlaps and assembled into 108 unique DS contigs.

The number of clones per DS contig varied between 1 to 22 with the length of each contig ranging from 250bp to 850 bp. Small sequence-tag-sites PCR assays were developed for each DS contig and two experiments were carried out concomitantly; mapping each DS contig back to the bacterial clone contig of the region and testing for the presence of each DS contig in cDNA libraries. Overall, 86 or 80% of the DS contigs mapped back to the region and were found to be in cDNA libraries. The number of 80% mapping to the region was probably an underestimate of the fidelity of the direct-selection since PCR assays which cross exon-intron boundaries would be expected to fail or give larger size products, thereby being scored negative.

b. Exon-Trapping

CsCl-purified genomic P1 (Genome Systems), BAC (Research Genetics) and PAC (Genome Systems) DNAs were digested with BamHI, Bgl II, Pst I Sac 1 and Xho I and 125 ng of each digest ligated into 500 ng pSPL3 (Church *et al.* Nature Genetics 6:98-105 (1994)) (Life Technologies, Gaithersburg, MD) digested with the appropriate restriction enzyme and phosphatased with calf intestinal alkaline phosphatase (USB, Cleveland, OH). One tenth of the ligation was used to transform XL1-Blue MRF' cells (Stratagene, La Jolla, CA) by electroporation. Nine tenths of the electroporation was used to inoculate 10 ml of LB + 100µg/ml of carbenicillen and after overnight growth, DNA was prepared using Qiagen Q-20 tips (Qiagen GmbH, Hilden Germany). The remaining one tenth was plated on LB +100 µg/ml carbenicillen plates to evaluated the efficiency on cloning and to test individual clones for the present of single inserts. COS-7 cells were seed overnight at a density of 1.4 x10^5/well in 6 well dishes. One µg of DNA was transfected using 6ml of Lipofect-Ace. Cytoplasmic RNA was isolated 48 hr post-transfection. RT-PCR was carried out as described by Church *et al.* (ibid) using commercially available reagents Life Technologies, Gaithersburg, MD). The resulting CUA-tailed PCR fragments for each restriction digested bacterial clone were pooled and UDG cloned into pSP72-U (a derivative of pSP72). The DNA was transformed in DH5α and the cells plated onto nylon membranes. After overnight growth, duplicates were made and the DNA hybridized to ^{32}P end-labeled oligos designed to detect various background products associated with the pSPL3 vector. One set of filters was hybridized with the following gel-purified oligos in 6X SSC aqueous hybridization solution at 42° C:

vector-vector splicing	5'-CGACCCAGCAACCTGGAGAT-3'
cryptic donor-1021	5'-AGCTCGAGCGGCCGCTGCAG-3'
cryptic donor-1134	5'-AGACCCCAACCCACAAGAAG-3'

The filters were washed twice in 6X SSC, 10 mM sodium pyrophosphate (NaPPi) at 60°C, 30 mins.

After overnight autoradiography, non-hybridizing clones were picked and grown in 250 µl of LB + 100µg/ml of carbenicillin in 96 well mini-rack tubes. The samples were analyzed by PCR using the secondary PCR primers supplied in the kit (Life Technologies, Gaithersburg, MD) and those clones with inserts greater than 200 bp were selected for sequencing.

Ninety-six exon traps per bacterial clone were sequenced for a total of 768 reactions and the resulting data analyzed by BLAST. In addition, each potential exon was searched against a database of the 86 DS contigs to eliminate redundant sequences. PCR assays were developed for

each of the potential exons and they were tested for their presence in cDNA libraries. A total of 48 potential exons remained after these screening steps.

c. Sample Sequencing

A minimal set of bacterial clones chosen to cover y899g1 were prepped with the Qiagen Maxi-Prep system and purified on CsCl. Ten micrograms of DNA from each bacterial clone was sonicated in a Heat Systems Sonicator XL and end-repaired with Klenow (USB) and T4 polymerase (USB). The sheared fragments were size selected between three to four kilobases on a 0.7% agarose gel and then ligated to BstXI linkers (Invitrogen). The ligations were gel purified on a 0.7% agarose gel and cloned into a pSP72 derivative plasmid vector. The resulting plasmids were transformed into electrocompetent DH5α cells and plated on LB-carbenicillin plates. A sufficient number of colonies was picked to achieve 15-fold clone coverage. The appropriate number of colonies was calculated by the following equation to generate a single-fold sequence coverage: Number of colonies = size of bacterial clone (in kb)/average sequence read length (0.4 kb). These colonies were prepped in the 96-well AGCT system and end-sequenced with oligo MAP1 using standard ABI Dye Terminator protocols. MAP1 was CGTTAGAACGCGGCTACAAT. The MAP1 sequences were screened locally with the BLAST algorithm against all available public databases. All sequence identities were catalogued and cross referenced to the DS and exon-trapped databases.

A total of 3794 end sequence reactions were run to achieve the theoretical 1X coverage. Eighty-five percent of these sequences contained non-bacterial non-vector inserts. An additional 1060 end sequence reactions were run from the opposite end of the cloning vector to augment the sequence coverage and to prepare for contigging across selected regions. BLAST searches to all publicly available databases identified 12 histone genes and 74 unique expressed sequence fragments (ESF). The ESF represent a collection of ESTs and other expressed sequence fragments that were selected due to their sequence identity over a significant portion of genomic DNA. The ESF were cross referenced against the DS and exon-trapped databases to eliminate redundancies. 58 unique ESF remained, representing 39 distinct clones. Included in these ESF are 5 sequences homologous to histone genes.

Table 3. EST's found by Sample Sequencing Large Insert Bacterial Clones

Clone name	Bacterial clone	Homology 5' blastx	Homology 3' blastx	Poly A+ signal[1]	Genomic poly $(A)_{\geq 8}$	cDNA Homology
EST03556	pc157c3	na[2]	none[3]	+	-	cDNA 28
ym33f11	pc157c3	ZNF	na	na	na	
EST04698	pc157c3	na	NSH[4]	+	-	
EST04812	pc157c3	na	NSH	-	-	
yb89b08	pc157c3	NSH	na	na	na	
yd88g11	pc157c3	na	nsh	+	-	
yj49b01	pc157c3	NSH	na	na	na	
yv81d05	pc157c3	HG17 Human	NSH	+	-	cDNA 30
yg57h09	p196e20	BUTYBOVIN	NSH	+	-	cDNA 21
yq23d08	p196e20	BUTYBOVIN	NSH	+	-	cDNA 21

Clone name	Bacterial clone	Homology 5' blastx	Homology 3' blastx	Poly A+ signal[1]	Genomic poly $(A)_{\geq 8}$	cDNA Homology
yo65f06	p196e20	NSH	na	na	na	cDNA 29
yv88c09	p196e20	BUTYBOVIN	na	na	na	cDNA 29
yd17d06	p196e20	NSH	na	na	na	cDNA 23
ye25g03	p196e20	BUTYBOVIN	NSH	na	na	cDNA 44
ys04h08	pc45p21	NSH	NSH	+	-	cDNA 44
yn01c05	p196e20	BUTYBOVIN	na	na	na	cDNA 32
YG78F10	PC45P21	NSH	NSH	na	na	
yh54f11	p196e20	none	NSH	-	-	
ys05b08	pc157c3	NSH	Alu	-	+	
yb12h11	b132a12	NSH	Histone H3.1	-	-	
HSC2EE082	b132a12	na	NSH	+	-	
HUM160h11b	b132a12	none	na	na	na	
yg04f09	b132b12	Line element	Alu	-	+	
yd37d11	b132a12	NSH	Alu	-	+	
ym29g03	b132a12	Histone H2A	NSH	+	-	cDNA 37
yi77b02	b132a12	NSH	NSH	-	-	cDNA 37
yh76b05	b132a12	NSH	Alu	-	-	
yu98e02	b132a12	NSH	Alue	-	+	
yd72h12	b132a12	Alu	NSH	+	+	
yd19d03	pc222k22	Histone H2B.1	NSH	+	-	
ye98g01	b132a12	NSH	NSH	+	-	cDNA
yi61f07	b132a12	NSH	NSH	-	+	
EST05340	b3e17	na	Alu	-	+	
yd35d05	pc222k22	NSH	NSH	-	+	
yc52a05	pc75L14	NSH	na	na	na	
yd84a05	pc75L14	none	none	-	?[5]	
yr42a05	pc75L14	NaPi transport	none	+	-	cDNA 22B
yd83h08	b20h20	NSH	none	+	-	
ye38c09	b20h20	NSH	Alu	-	+	
yp74c05	b20h20	NaPi transport	Alu	?[6]	na	

Bracketed area is the critical region

1 Signal of ATAAA or ATTAA

2 Not available

3 "NONE" reported by blast

4 No Significant Homologies

5 3' splice that is not on contig

6 Poor EST sequence

d. cDNA library screening

Superscript plasmid cDNA libraries, brain, liver and testis, were purchased from Life Technologies, Gaithersburg, MD. Colonies were plated on Hybond N filters (Amersham) using

standard techniques. Insert probes from DS, exons and EST (I.M.A.G.E. clones; Genome Systems) were all isolated by PCR followed by purification in low-melting point agarose gels (Seakem). The DNAs were labeled in gel using the Prime-it II kit (Stratagene, La Jolla, CA). Small exon probes were labeled using their respective STS PCR primers instead of random primers. Up to 5 different probes were pooled in a hybridization. Filters were hybridized in duplicate using standard techniques. Putative positives were screened by PCR using the probe's STSs to identify clones. Inserts from positive clones were subcloned in pSP72 and sequenced.

e. Northern blots and RT-PCR analysis

Multiple tissue northern blots were purchased from Clontech and hybridized according the manufacturer's instructions. RT-PCR was carried out on random primed first strand cDNA made from poly A+ RNA (Clontech) using AmpliTaq Gold (Perkin-Elmer). Control reactions were performed on RNA samples processed in the absence of reverse transcriptase to control for genomic DNA contamination.

f. Genomic Sequencing

The MAP1 sequences from the bacterial clones b132a2, 222K22, and 75L14 were assembled into contigs with the Staden package (available from Roger Staden, MRC). A minimal set of 3 kb clones was selected for sequencing with oligo labeled MAP2 that sits on the opposite end of the plasmid vector. The sequence of MAP2 was GCCGATTCATTAATGCAGGT. The MAP2 sequences were entered into the Staden database in conjunction with the MAP1 sequences to generate a tiling path of 3 kb clones across the region. These sequences were also screened with the BLAST algorithm and all novel sequence identities were noted. The plasmid 3 kb libraries were concurrently transformed in 96 well format into pox38UR (available from C. Martin, Lawrence Berkeley Laboratories). The transformants were subsequently mated with JGM (Strathman *et al.* P.N.A.S. 88:1247-1250 (1991) in 96 well format. All matings of the 3 kb clones within the tiling path were streaked on LB-carbenicillin-kanamycin plates and a random selection of 12 colonies per 3 kb clone was prepped in the AGCT system. The oligos -21: CTGTAAAACGACGGCCAGTC, and REV: GCAGGAAACAGCTATGACC were used to sequence off both ends of the transposon. Each 3 kb clone was assembled in conjunction with the end sequence information from all bacterial clones to generate complete sequence across the region. The genomic sequence was analyzed with the BLAST nucleotide and protein homology algorithms and the GRAIL 1.2 software to identify novel open reading frames (ORF) for gene finding.

g. Discussion

A compilation of 174 ESF led to the construction of an expressed sequence map of the region that served as the framework for the isolation of full-length cDNAs (Figure 1). (The map shows the subset of ESF that were actually mapped). Probes were developed for 82 best ESFs which appeared to be derived from the coding portions of cDNAs and the appropriate cDNA libraries were screened. This led to the isolation of 19 cDNAs, 17 of which represented novel sequences. 70 of the 174 ESF were included in the cDNAs isolated (40%). 36 probes failed to produce any clones even after repeated screening of several libraries. 51 ESF which were not accounted for in the cDNAs

cloned were not used in any screen. Therefore, it is possible that some additional genes within this 1 megabase region may have escaped detection.

A list of these cDNAs cloned and a comparison of the methods used to find them is presented in Table 4. Direct selection found 14 out of the 18 cDNAs contained within the boundaries of the YAC used in the experiment. Exon trapping found 15 out of the 19 cDNAs contained within the boundaries of the large insert bacterial clone contig. Sample sequencing identified 11 genes that had corresponding ESTs in the public database.

Table 4. Comparison of gene finding methods

Bacterial Clone	CDNA #	Homology	EST	DS	Exon Trap
157c	28	zinc finger	EST03556	2	1
157c3	30	nonhistone	yv81d05	1	none
			yvh07a10		
157c3	46	ORF	yd88g11	1	
157c3	20	BT	none	none	3
p18696	21	BTF1	yn01G5	4	5
			yg23d08		
			yg57h09		
			yu15h03		
45p21	32	BTF2	yg78f10	7	3
			yn01c05		
45p21	29	BTF3	ye25g03	2	9
			yo65f06		
45p21	23	BTF4	yd17d06	4	6
45p21	44	BTF5	ys04h08	2	4
3e17	41	genomic?	none	none	1
132a2	43	genomic?	none	none	3
132a2	36	genomic?	none	1	none
132a2	37	histone 2A	ym29g03	3	none
			yh87a03		
75l14	24	MHC class 1	ye98g01	1	2
132a2	39	genomic?	none	none	4
132a2	27	Ro/SSA	none	3	4
132a2	22B	NPT1-like	yr42a05	1	7
			yf09g06		
20h20	22E	NPT1-like	none	2	5
20h20	NPT1	NPT1	yp74c05	N/A	3

As a final approach, a tiling path with overlapping end sequences from the sample sequence database was generated. Each 3 kb clone within the path was shotgun-sequenced using transposable elements as platforms for dual end sequencing. These individual clones were assembled in conjunction with the end sequences from all bacterial clones in the region. The resulting sequence (Figure 2) was analyzed systematically with BLAST homology searches and the Grail 1.2 program to identify novel open reading frames (ORF) and other gene-like structures. The BLAST homology searches did not produce any probes that had not already been identified by sample sequencing. Grail predicted exons for all the genes in the region, but was only able assemble the histones into any representative form. A detailed analysis of BLAST homology searches to protein databases identified an enticing homology to a zinc alpha 2 glycoprotein approximately 25 kb upstream of HFE, but the lack of a substantial ORF and the presence of a stop codon suggested that it was a pseudogene. Figure 2 shows the positions, the exon and intron structures, and the relative orientation of transcription of novel genes within this region. Also shown are the positions and transcriptional orientations of the histone genes. A total of 12 histone genes were identified in this study.

In an effort to account for the ESTs that did not associate with the characterized genes in the 250 kb region, the genomic sequence around the putative 3' ends were examined for polyadenylation signals to determine whether certain EST sequences may have originated from genomic DNA contamination in the normalized cDNA libraries used in EST generation. The positions of the 14 ESTs found in this region are indicated in Figure 2 to show those associated with the cDNAs cloned and those which did not associate with genomic DNA of obvious coding potential. Four ESTs corresponded to 3 of the 4 cDNAs cloned from the region (Table 2). One EST encoded a histone H2B.1 gene and another was a repetitive element. Of the remaining 8, 6 EST clones were used as probes of cDNA libraries with negative results. Those sequences representing putative 3' ends of cDNA were searched for the presence of poly (A)+ addition signals. Five of the 13 ESTs which had 3' end sequence, had the sequence ATAAA or ATTAA. Five of the remaining 8 ESTs that did not have a poly (A)+ addition signal had genomic encoded stretches of poly (A) near the end of EST sequence and, therefore, may have been created by oligo d(T) priming of contaminating genomic DNA. This analysis was expanded to include all ESTs in the large-insert bacterial contigs with definitive 3' ends. Of the remaining 26, 15 had 3' end sequence and, of these, 8 had poly (A)+ addition signals. Five of these 8 ESTs were associated with the cloned cDNAs. Of the remaining 7 which did not have poly (A)+ addition signals, 4 had genomic encoded stretches of poly (A).

i. Butyrophilin gene family

The human homolog of the bovine butyrophilin gene (BT) was cloned and mapped to approximately 480 kb centromeric to HFE (Figure 1). BT is a transmembrane protein of unknown function which constitutes 40% of the total protein associated with the fat globule of bovine milk (Jack *et al.* J. Biol. Chem. 265:14481-14486 (1990)). A human homolog of BT has recently been cloned by Tayloer *et al.* (Biochem Biophys Acta 1306:1-4 (1996)). The results in this study indicated that BT is a member of a gene family with at least five other members of the family residing in this region (Figure 1). A comparison of these proteins is shown in Figure 3. The proteins were aligned based on their descending order of relatedness and to minimized gaps in the sequence. Each of the five proteins

display varying degrees of homology to BT. BTF1 (cDNA 21), BTF2 (cDNA 32), BTF5 (cDNA 44), and BTF3 (cDNA 29) are 45%, 48%, 46%, and 49%, identical to BT, whereas BTF4 (cDNA 23), which is more similar to BTF3 (cDNA 29), is only 26% identical. This low degree of identity to BT is largely due to a truncation at the carboxyl terminus of the protein. The BTF family falls into two groups: BTF1 and 2 which are more related to each other than to BT or the other BTF members, and BTF5, 3 and 4, which appear to have a common evolutionary origin. The order of these genes on the chromosome suggests that the BT gene has duplicated two times, giving rise to BTF1 and BTF5. Subsequently, it appears likely these two genes experienced further duplication events to give rise to the other members in their groups.

The three major components of BT, the B-G immunoglobulin superfamily domain (containing the V consensus sequence) (Miller *et al.* Proc. Natl. Acad. Sci. U.S.A. 88:4377-4381 (1991)), the transmembrane region, and the B30-2 exon are found in all of these proteins (with the exception of BTF4 (cDNA 23) which lacks the B30-2 exon by virtue of the carboxyl terminal truncation). The exon B30-2 is a previously noted feature of the MHC class 1 region found approximately 200 kb centromeric to the HLA-A gene (Vernet *et al.*, J. Mol. Evol. 37:600-612 (1993)). In addition this exon is found in several genes of diverse function telomeric to HLA-A namely MOG (approximately 200 kb) and RFP (approximately 1 megabase) (Amadou *et al.* Genomics 26:9-20 (1995)).

The levels of the BTF mRNA were analyzed by northern blot analysis (Figure 4A). The expression of the BTF genes fell into two patterns. BTF1 and BTF2 were expressed as a single major transcript of 2.9 kb and one minor transcript of 5.0 kb. These genes were expressed at high levels in all the tissues tested with the exception of the kidney where the expression level was less. The two genes are 90% identical at the DNA sequence level, therefore, it is possible that the signal observed on the northerns was the result of cross-hybridization and only one of the two genes was actually expressed. To address this possibility RT-PCR experiments were carried out on a panel of different tissues in order to detect possible tissue dependent expression that would suggest that both genes are expressed. Identical, and thus equivocal, results were obtained with both BTF1 and BTF2 amplification (Figure 4B).

The second group of genes, BTF3-5, are expressed as three (BTF5) (Figure 4A) and two (BTF3 and 4) transcripts ranging from 4.0 to 3.3 kb. BTF5 is expressed at moderate levels in all tissues tested with the exception of the kidney where the expression level is less. RT-PCR experiments showed that mRNA from the BTF5 gene can be found in all tissues tested, including the kidney (Figure 4B). Identical results were obtained with primers from the other genes of this group (data not shown). These genes are also 90% identical to each other at the DNA sequence level (but only 58% identical to BTF1 and 2), hence like BTF1 and BTF2, cross-hybridization could account for the similarity in size and patterns on the northern blots and RT-PCR. This might be particularly true for BTF4 which lacks the B30-2 exon but still hybridizes to larger size transcripts like BTF5 and BTF3.

ii. A gene with similarity to 52 kD Ro/SSA auto-antigen

Located approximately 120 kb telomeric to the HFE gene is a gene, RoRet, that has 58% amino acid similarity to the 52 kD Ro/SSA protein, an auto-antigen of unknown function that is frequently recognized by antibodies in patients with systemic lupus and Sjogren's syndrome (Anderson

et al. Lancet 2:456-560 (1961); Clark *et al.* J. Immunol. 102:117-122 (1969)) (Figures 1 and 2). Alignment of the predicted amino acid sequence of this cDNA with that of 52 kD Ro/SSA indicated two features associated with the 52 kD Ro/SSA protein: a putative DNA binding cysteine rich motif (C-X-(I,V)-C-X(11-30)-C-X-H-X-(F,I,L)-C-X(2)-C-(I,L,M)-X(10-18)-C-P-X-C) found at the N terminus (Freemont *et al.* Cell 64: 483-484 (1991)) and the B30-2 exon found near the carboxyl terminus, are both conserved in RoRet (Figure 5). Northern blot analysis indicated the RoRet gene was expressed as two major transcripts of 2.8 and 2.2 kb and two minor transcripts of 7.1 and 4.4 kb in all of the tissues on the blot at levels reflective of the RNA amounts as determined by β-actin probing (Figure 6A). Using RT-PCR, expression can also be detected in small intestine, kidney liver, and spleen (Figure 6B).

iii. Two genes with homology to a sodium phosphate transporter

A cDNA for a sodium phosphate transport protein (NPT1) was previously cloned and mapped to 6p21.3 using a somatic cell hybrid panel (Chong *et al.* Genomics 18:355-359 (1993)). NPT1 maps 320 kb telomeric to the HFE gene (Figures 1 and 2). Two additional cDNAs were cloned which show appreciable homology to NPT1 (Figure 5). These genes, NPT3 and NPT4, mapped 1.5 megabases and 1.3 megabases centromeric to the NPT1 gene (Figure 1). Like NPT1, the gene products of NPT3 and NPT4 were extremely hydrophobic, which may reflect a membrane location. Both proteins gave hydrophilicity profiles which were indistinguishable from NPT1 in this study (data not shown). Northern blot analysis indicated that the two genes have different patterns of expression (Figure 6C). NPT3 was expressed at high levels as a 7.2 kb transcript predominately in muscle and heart. Lesser amount of the mRNA were also found in brain, placenta, lung, liver and pancreas. RT-PCR analysis indicated that expression of the proper size PCR fragment for NPT3 was clearly absent in fetal brain, bone marrow and small intestine (Figure 6D). A smaller size fragment was detectable in all tissues with the exception of the liver, which may represent evidence for alternative splicing. Although expression was apparently absent from the kidney by northern blot analysis, it was detectable by RT-PCR. Expression was also noted in the mammary gland, spleen and testis. NPT4, on the other hand, was expressed only in the liver and the kidney as a smear of transcripts approximately 2.6 - 1.7 kb (Figure 6C). RT-PCR confirmed these results, although a small amount of the proper size PCR fragment was also found in the small intestine and testis (Figure 6D). Other tissues showed amplification, but the fragments were of larger and smaller size than that produced by the cDNA 22E positive control. Hence, these two genes which apparently have the structural characteristics of a sodium phosphate transporter, appeared to be under the control of different regulatory mechanism that lead to differential patterns of expression.

2. Sequencing of 235 kb from a Homozygous Ancestral (Affected) Individual

In these studies the entire genomic sequence was determined from an HH affected individual for a region corresponding to a 235,033 bp region surrounding the HFE gene between the flanking markers D6S2238 and D6S2241. The sequence was derived from a human lymphoblastoid cell line, HC14, that is homozygous for the ancestral HH mutation and region. The sequence from the ancestral chromosome (Figure 9) was compared to the sequence of the region in an unaffected individual (Figure 8) disclosed in copending U.S.S.N. 08/724,394 to identify polymorphic sites. A

subset of the polymorphic alleles so defined were further studied to determine their frequency in a collection of random individuals.

The cell line HC14 was deposited with the ATCC on June 25, 1997, and is designated ATCC CRL-12371.

a. Cosmid Library Screening

The strategy and methodology for sequencing the genomic DNA for the affected individual was essentially as described in copending U.S.S.N. 08/724,394, hereby incorporated by reference in its entirety. Basically, a cosmid library was constructed using high molecular weight DNA from HC14 cells. The library was constructed in the supercos vector (Stratagene, La Jolla, CA). Colonies were replicated onto Biotrans nylon filters (ICN) using standard techniques. Probes from genomic subclones used in the generation of the sequence of the unaffected sequence disclosed in 08/724,394 were isolated by gel electrophoresis and electroporation. Subclones were chosen at a spacing of approximately 20 kb throughout the 235 kb region. The DNA was labeled by incorporation of 32P dCTP by the random primer labeling approach. Positively hybridizing clones were isolated to purity by a secondary screening step. Cosmid insert ends were sequenced to determine whether full coverage had been obtained, and which clones formed a minimal path of cosmids through the 235 kb region.

b. Sample Sequencing

A minimal set of cosmid clones chosen to cover the 235 kb region were prepped with the Qiagen Maxi-Prep system. Ten micrograms of DNA from each cosmid preparation were sonicated in a Heat Systems Sonicator XL and end-repaired with Klenow (USB) and T4 DNA polymerase (USB). The sheared fragments were size selected between three to four kilobases on a 0.7% agarose gel and then ligated to BstXI linkers (Invitrogen). The ligations were gel purified on a 0.7% agarose gel and cloned into a pSP72 derivative plasmid vector. The resulting plasmids were transformed into electrocompetent DH5α cells and plated on LB-carbenicillin plates. A sufficient number of colonies was picked to achieve 15-fold clone coverage. The appropriate number of colonies was calculated by the following equation to generate a single-fold sequence coverage: Number of colonies = size of bacterial clone (in kb)/average sequence read length (0.4 kb). These colonies were prepped in the 96-well Qiagen REAL, and the 5' to 3' DNA Prep Kit, and AGCT end-sequenced with oligo MAP1 using standard ABI Dye Terminator protocols. MAP1 was CGTTAGAACGCGGCTACAAT.

c. Genomic Sequencing

The MAP1 sequences from the cosmid clones HC182, HC187, HC189, HC195, HC199, HC200, HC201, HC206, HC207, and HC212 were assembled into contigs with the Staden package (available from Roger Staden, MRC). A minimal set of 3 kb clones was selected for sequencing with oligo labeled MAP2 that sits on the opposite end of the plasmid vector. The sequence of MAP2 was GCCGATTCATTAATGCAGGT. The MAP2 sequences were entered into the Staden database in conjunction with the MAP1 sequences to generate a tiling path of 3 kb clones across the region. The plasmid 3 kb libraries were concurrently transformed in 96 well format into pox38UR (available from C. Martin, Lawrence Berkeley Laboratories). The transformants were subsequently mated with JGM (Strathman et al. P.N.A.S. 88:1247-1250 (1991) in 96 well format. All matings of the

3 kb clones within the tiling path were streaked on LB-carbenicillin-kanamycin plates and a random selection of 12 colonies per 3 kb clone was prepped in the AGCT system. The oligos -21: CTGTAAAACGACGGCCAGTC, and REV: GCAGGAAACAGCTATGACC were used to sequence off both ends of the transposon. Each 3 kb clone was assembled in conjunction with the end sequence information from all cosmid clones in the region.

In some regions, the coverage of the genomic sequence by cosmids was incomplete. Any gaps in the sequence were filled by using standard PCR techniques to amplify genomic DNA in those regions and standard ABI dye terminator chemistry to sequence the amplification products.

d. Identification of Polymorphic Sites

The assembled sequence of the cosmid clones in connection with the PCR amplified genomic DNA was compared to the genomic sequence of the unaffected individual using the FASTA algorithm. Numeric values were assigned to the sequenced regions of 1 to 235,303, wherein base 1 refers to the first C in the CA repeat of D6S2238 and base 235,303 is the last T in the GT repeat of D6S2241 of the unaffected sequence (Figure 8). Table 1 lists the differences between the two compared sequences. Note that previously disclosed (Feder et al., Nature Genetics 13:399-408 (1996)) polymorphic sites D6S2238 (base 1), D6S2241 (base 235,032), 24d1 (base 41316), and D6S2239 (base 84841) are not included in the list of new polymorphisms, although they are provided for reference in a footnote to the Table and were observed in the ancestral sequence. In the Table, a single base change such as C-T refers to a C in the unaffected sequence at the indicated base position that occurred as a T in the corresponding position in the affected sequence. Similarly, an insertion of one or more bases, such as TTT in the affected sequence, is represented as "TTT INS" between the indicated bases of the unaffected sequence. A deletion of one or more bases occurring in the affected sequence, such as AAA DEL, is represented as the deletion of the indicated bases in the unaffected sequence.

e. Characterization of Rare Polymorphisms

In this study about 100 of the polymorphisms of Table 1 were arbitrarily chosen for further characterization. Allele frequencies in the general population were estimated by OLA analysis using a population of random DNAs (the "CEPH" collection, J. Dausset et al., Genomics 6(3):575-577 (1990)). These results are provided in Table 2.

One single base pair difference, occurring at base 35983 and designated C182.1G7T/C (an A to G change on the opposite strand) was present in the ancestral chromosome and rare in the random DNAs. This change occurred in a noncoding region of the hemochromatosis gene near exon 7 approximately 5.3 kb from the 24d1 (Cys282Tyr) mutation. OLA was used to genotype 90 hemochromatosis patients for the C182.1G7T/C base pair change. The frequency for C occurring at this position in the patients was 79.4% as compared to 5% in the random DNAs. Eighty-five of the 90 patients assayed contained identical 24d1 and C182.1G7T/C genotypes. Four of the remaining 5 patients were homozygous at 24d1 and heterozygous at C182.1G7T/C; one was heterozygous at 24d1 and homozygous at C182.1G7T/C. The primers used for this analysis were as follows.

PCR primers for detection:

182.1G7.F 5'-GCATCAGCGATTAACTTCTAC -3'

182.1G7.R 5'-TTGCATTGTGGTGAAATCAGGG -3'

For the detection assay, the biotinylated primers used were as follows.

182.1G7.C 5' (b)CTGAGTAATTGTTTAAGGTGC -3'

182.1G7.T 5' (b)CTGAGTAATTGTTTAAGGTGT -3'

The phosphorylated digoxigenin-labeled primer used was:

182.1G7.D 5' (p)AGAAGAGATAGATATGGTGG -3'

A further rare single base pair change was detected at 61,465bp. The inheritance pattern of this polymorphism, C195.1H5C/T (a G to A change on the opposite strand), is identical to that of 24d1. The frequency of T occurring at that position (C195.1H5T) observed in a set of 76 patients was 78.5% as compared to 5% in random individuals.

PCR primers for detection:

1951H5.3F 5'-GAATGTGACCGTCCCATGAG-3'

1951H5.3R 5'-CAACTGAATATGCAGAAAAAAGTACACC-3'

For the detection assay, the biotinylated primers used were:

1951H5.3.4 5' (b)AGTAGCTGGGACTCACGGTGT-3'

1957H5.3.5 5' (b)AGTAGCTGGGACTCACGGTGC-3'

The phosphorylated digoxigenin-labeled primer used was:

1951H5.3.6 5' (p)GCGCCACCACTCCCAGCTCAT-3'

These rare alleles are thus preferred surrogate markers for 24d1 and are especially useful in screening assays for the likely presence of 24d1 and/or 24d2.

All publications, patents, and patent applications cited herein are hereby incorporated by reference in their entirety.

WHAT IS CLAIMED IS:

1. An oligonucleotide comprising at least 8 to about 100 consecutive bases from the sequence of Figure 9, or the complement of the sequence, wherein the at least 8 to about 100 consecutive bases includes at least one polymorphic site of Table 1.

2. The oligonucleotide of claim 1, wherein the polymorphic site is selected from the group consisting of base 35983 or base 61465.

3. An oligonucleotide pair selected from the sequence of Figure 9 or its complement for amplification of a polymorphic site of Table 1.

4. An isolated nucleic acid molecule comprising about 100 consecutive bases to about 235 kb substantially identical to the sequence of Figure 9, wherein the DNA molecule comprises at least one polymorphic site of Table 1.

5. The isolated nucleic acid molecule of claim 4, wherein the polymorphic site is selected from the group consisting of base 35983 or base 61465.

6. The isolated nucleic acid molecule of claim 4, wherein the nucleic acid is selected from the group consisting of cDNA, RNA, or genomic DNA.

7. A polypeptide encoded by the nucleic acid molecule of claim 4.

8. An antibody which specifically recognizes the polypeptide of claim 7.

9. A method to determine the presence or absence of the common hereditary hemochromatosis (HFE) gene mutation in an individual comprising:

providing DNA or RNA from the individual; and

assessing the DNA or RNA for the presence or absence of a haplotype of Table 1, wherein, as a result, the absence of a haplotype of Table 1 indicates the likely absence of the HFE gene mutation in the genome of the individual and the presence of the haplotype indicates the likely presence of the HFE gene mutation in the genome of the individual.

10. The method of claim 9, wherein the method further comprises assessing the RNA or DNA for the presence of at least one of the polymorphisms 24d1, 24d2, HHP-1, HHP-19, or HHP-29; or microsatellite repeat alleles 19D9:205, 18B4:235, 1A2:239, 1E4:271, 24E2:245, 2B8:206, 3321-1:98, 4073-1:182, 4440-1:180, 4440-2:139, 731-1:177, 5091-1:148, 3216-1:221, 4072-2:170, 950-1:142, 950-2:164, 950-3:165, 950-4:128, 950-6:151, 950-8:137, 63-1:151, 63-2:113, 63-3:169, 65-

1:206, 65-2:159, 68-1:167, 241-5:108, 241-29:113, 373-8:151, 373-29:113, D6S258:199, D6S265:122, D6S105:124, D6S306:238, D6S464:206, or D6S1001:180.

11. The method of claim 9, wherein the haplotype comprises at least two polymorphic sites of Table 1.

12. The method of claim 11, wherein one of the at least two polymorphic sites of Table 1 is at base 35983 or 61465.

13. The method of claim 11, wherein the haplotype comprises at least three polymorphic sites of Table 1.

14. A method to determine the presence or absence of the common hereditary hemochromatosis (HFE) gene mutation in an individual comprising:

providing DNA or RNA from the individual; and

assessing the DNA or RNA for the presence or absence of a genotype defined by a polymorphic allele of Table 1,

wherein, as a result, the absence of a genotype defined by a polymorphic allele of Table 1 indicates the likely absence of the HFE gene mutation in the genome of the individual and the presence of the genotype indicates the likely presence of the HFE gene mutation in the genome of the individual.

15. The method of claim 15, wherein the polymorphic allele occurs in less than about 50% of a random population of individuals.

16. The method of claim 15, wherein the polymorphic allele occurs in less than about 25% of a random population of individuals.

17. The method of claim 15, wherein the polymorphic allele occurs in less than about 5% of a random population of individuals.

18. The method of claim 15, wherein the genotype is C182.1G7C or C195.1H5T.

19. A kit comprising one or more oligonucleotides of claim 1.

20. A kit comprising at least one oligonucleotide pair of claim 3.

21. A culture of lymphoblastoid cells having the designation ATCC CRL-12371.

22. An isolated nucleic acid sequence comprising a sequence substantially identical to BTF1.

23. The isolated nucleic acid sequence of claim 23, wherein the nucleic acid is cDNA.

24. The polypeptide encoded by the isolated nucleic acid sequence of claim 23.

25. A vector comprising the nucleic acid sequence of claim 23.

26. A host cell stably transfected with the nucleic acid sequence of claim 23.

27. An antibody that is specifically immunoreactive with the polypeptide of claim 24.

28. An isolated nucleic acid sequence comprising a sequence substantially identical to BTF2.

29. The isolated nucleic acid sequence of claim 28, wherein the nucleic acid is cDNA.

30. The polypeptide encoded by the isolated nucleic acid sequence of claim 28.

31. A vector comprising the nucleic acid sequence of claim 28.

32. A host cell stably transfected with the nucleic acid sequence of claim 28.

33. An antibody that is specifically immunoreactive with the polypeptide of claim 30.

34. An isolated nucleic acid sequence comprising a sequence substantially identical to BTF3.

35. The isolated nucleic acid sequence of claim 34, wherein the nucleic acid is cDNA.

36. The polypeptide encoded by the isolated nucleic acid sequence of claim 34.

37. A vector comprising the nucleic acid sequence of claim 34.

38. A host cell stably transfected with the nucleic acid sequence of claim 34.

39. An antibody that is specifically immunoreactive with the polypeptide of claim 36.

40. An isolated nucleic acid sequence comprising a sequence substantially identical to BTF4.

41. The isolated nucleic acid sequence of claim 40, wherein the nucleic acid is cDNA.

42. The polypeptide encoded by the isolated nucleic acid sequence of claim 40.

43. A vector comprising the nucleic acid sequence of claim 40.

44. A host cell stably transfected with the nucleic acid sequence of claim 40.

45. An antibody that is specifically immunoreactive with the polypeptide of claim 42.

46. An isolated nucleic acid sequence comprising a sequence substantially identical to BTF5.

47. The isolated nucleic acid sequence of claim 46, wherein the nucleic acid is cDNA.

48. The polypeptide encoded by the isolated nucleic acid sequence of claim 46.

49. A vector comprising the nucleic acid sequence of claim 46.

50. A host cell stably transfected with the nucleic acid sequence of claim 46.

51. An antibody that is specifically immunoreactive with the polypeptide of claim 48.

52. An isolated nucleic acid sequence comprising a sequence substantially identical to NTP-3.

53. The isolated nucleic acid sequence of claim 52, wherein the nucleic acid is cDNA.

54. The polypeptide encoded by the isolated nucleic acid sequence of claim 52.

55. A vector comprising the nucleic acid sequence of claim 52.

56. A host cell stably transfected with the nucleic acid sequence of claim 52.

57. An antibody that is specifically immunoreactive with the polypeptide of claim 54.

58. An isolated nucleic acid sequence comprising a sequence substantially identical to NTP-4.

59. The isolated nucleic acid sequence of claim 58, wherein the nucleic acid is cDNA.

60. The polypeptide encoded by the isolated nucleic acid sequence of claim 58.

61. A vector comprising the nucleic acid sequence of claim 58.

62. A host cell stably transfected with the nucleic acid sequence of claim 58.

63. An antibody that is specifically immunoreactive with the polypeptide of claim 60.

64. An isolated nucleic acid sequence comprising a sequence substantially identical to RoRet.

65. The isolated nucleic acid sequence of claim 64, wherein the nucleic acid is cDNA.

66. The polypeptide encoded by the isolated nucleic acid sequence of claim 64.

67. A vector comprising the nucleic acid sequence of claim 64.

68. A host cell stably transfected with the nucleic acid sequence of claim 64.

69. An antibody that is specifically immunoreactive with the polypeptide of claim 66.

70. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to 18 contiguous nucleotides of BTF1.

71. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to 18 contiguous nucleotides of BTF2.

72. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to 18 contiguous nucleotides of BTF3.

73. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to 18 contiguous nucleotides of BTF4.

74. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to 18 contiguous nucleotides of BTF5.

75. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to 18 contiguous nucleotides of NPT3.

76. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to 18 contiguous nucleotides of NPT4.

77. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to 18 contiguous nucleotides of RoRet.

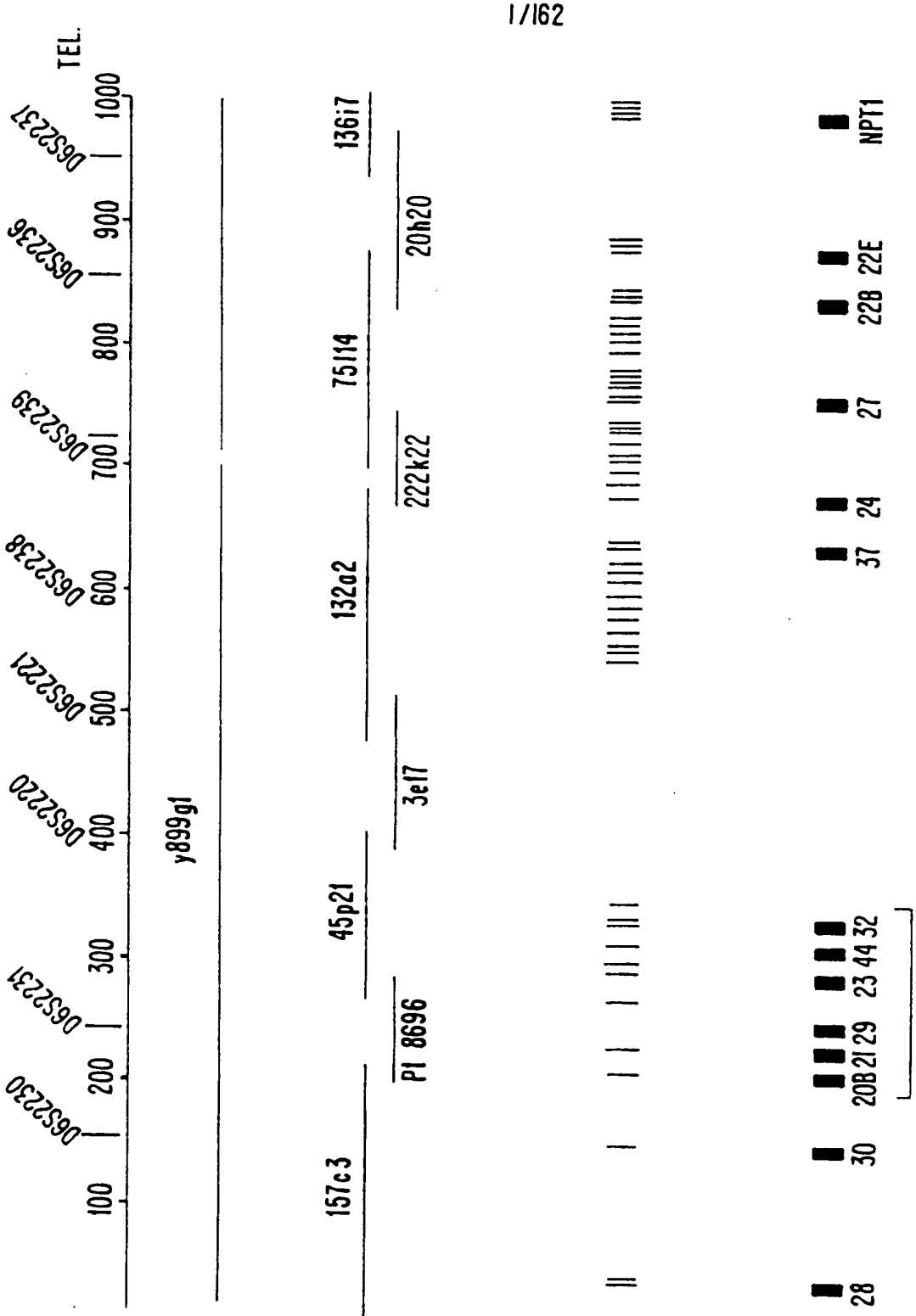

CEN.
YAC
BACTERIAL CLONES
EXPRESSED SEQUENCE FRAGMENTS
cDNAs
ZNF
NON-HISTONE
HISTONE
HLA-H
RoRet
NPT3
NPT4
NPT1
SEQUENCED REGION
TEL.
y899g1
157c3
45p21
132a2
75114
136i7
P1 8696
3e17
222k22
20h20
28
30
20B 21 29
23 44 32
BTF
37
24
27
22B
22E
D6S230
D6S231
D6S220
D6S221
D6S238
D6S239
D6S236
D6S237
100
200
300
400
500
600
700
800
900
1000

FIG. 1.

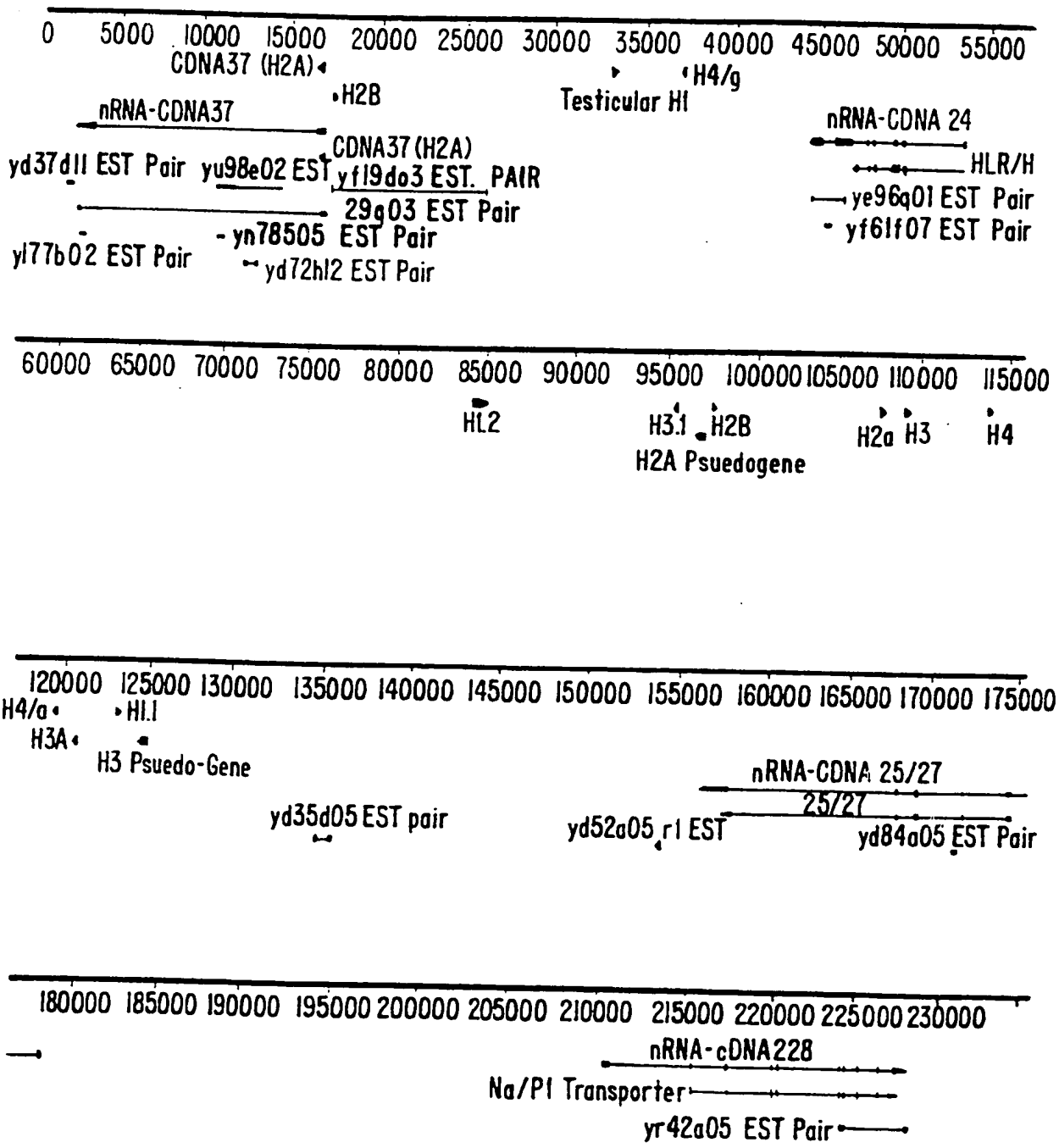

0 5000 10000 15000 20000 25000 30000 35000 40000 45000 50000 55000
CDNA37 (H2A)
H2B
H4/g
Testicular HI
nRNA-CDNA37
nRNA-CDNA 24
CDNA37 (H2A)
yd37d11 EST Pair
yu98e02 EST
yf19do3 EST. PAIR
HLR/H
29g03 EST Pair
ye96q01 EST Pair
yn78505 EST Pair
yf61f07 EST Pair
yl77b02 EST Pair
yd72h12 EST Pair
60000 65000 70000 75000 80000 85000 90000 95000 100000 105000 110000 115000
HL2
H3.1
H2B
H2a
H3
H4
H2A Psuedogene
120000 125000 130000 135000 140000 145000 150000 155000 160000 165000 170000 175000
H4/a
HI.1
H3A
H3 Psuedo-Gene
nRNA-CDNA 25/27
25/27
yd35d05 EST pair
yd52a05 r1 EST
yd84a05 EST Pair
180000 185000 190000 195000 200000 205000 210000 215000 220000 225000 230000
nRNA-cDNA228
Na/Pi Transporter
yr42a05 EST Pair

FIG. 2.

```
BT          --MAVFPSSGLPRCL---LTLILLQLPKLDSAPFDVIGPPEPILAVVGEDAELPCRLSPN
BTF1        MESAAALHFSRPAS----LLLLLLSLCALVSAQFIVVGPTDPILATVGENTTLRCHLSPE
BTF2        MEPAAALHFSLPASLLLLLLLLLLSLCALVSAQFTVVGPANPILAMVGENTTLRCHLSPE
BTF5        MKMASFLAFLLLNFR---VCLLLLQLLMPHSAQFSVLGPSGPILAMVGEDADLPCHLFPT
BTF3        MKMASSLAFLLLNFH---VSLFLVQLLTPCSAQFSVLGPSGPILAMVGEDADLPCHLFPT
BTF4        MKMASSLAFLLLNFH---VSLLLVQLLTPCSAQFSVLGPSGPILAMVGEDADLPCHLFPT
                  *                . * *. *    ** * *.**  **** *** . * *.* *

BT          ASAEHLELRWFRKKVSPAVLVHRDGREQEAEQMPEYRGRATLVQDGIAKGRVALRIRGVR
BTF1        KNAEDMEVRWFRSQFSPAVFVYKGGRERTEEQMEEYRGRTTFVSKDISRGSVALVIHNIT
BTF2        KNAEDMEVRWFRSQFSPAVFVYKGGRERTEEQMEEYRGRITFVSKDINRGSVALVIHNVT
BTF5        MSAETMELKWVSSSLRQVVNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVT
BTF3        MSAETMELRWVSSSLRQVVNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVT
BTF4        MSAETMELKWVSSSLRQVVNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVT
              ** .*..*        * *   *.*    *   **** . .   *  *  ** *...

BT          VSDDGEYTCFFREDGSYEEALVHLKVAALGSDPHISMQVQENGEICLECTSVGWYPEPQV
BTF1        AQENGTYRCYFQEGRSYDEAILHLVVAGLGSKPLISMRGHEDGGIRLECISRGWYPKPLT
BTF2        AQENGIYRCYFQEGRSYDEAILRLVVAGLGSKPLIEIKAQEDGSIWLECISGGWYPEPLT
BTF5        ASDSGKYLCYFQDGDFYEKALVELKVAALGSDLHVDVKGYKDGGIHLECRSTGWYPQPQI
BTF3        ASDSGKYLCYFQDGDFYEKALVELKVAALGSDLHIEVKGYEDGGIHLECRSTGWYPQPQI
BTF4        ASDSGKYLCYFQDGDFYEKALVELKVAALGSNLHVEVKGYEDGGIHLECRSTGWYPQPQI
              . * * *.*..   *. *.. * ** ***   . ..    * * *** * **** *

BT          QWRTSKGEKFPSTSESRNPDEEGLFTVAASVIIRDTSTKNVSCYIQNLLLGQEKKVEISI
BTF1        VWRDPYGGVAPALKEVSMPDADGLFMVTTAVIIRDKSVRNMSCSINNTLLGQKKESVIFI
BTF2        VWRDPYGEVVPALKEVSIADADGLFMVTTAVIIRDKYVRNVSCSVNNTLLGQEKETVIFI
BTF5        QWSNNKGENIPTVEAPVVADGVGLYAVAASVIMRGSSGEGVSCTIRSSLLGLEKTASISI
BTF3        KWSDTKGENIPAVEAPVVADGVGLYAVAASVIMRGSSGEGVSCTIRSSLLGLEKTASISI
BTF4        QWSNAKGENIPAVEAPVVADGVGLYEVAASVIMRGGSGEGVSCIIRNSLLGLEKTASISI
             *    *   *.       *  **. *...**.*     ..** .   ***  *   * *

BT          PASSLPRLTPWIVAVAV-------------ILMVLGLLTIGSIFFTWRLYNER-------
BTF1        PESFMPSVSPCAVALP-------------IIVVILMIPIAVCIYWINKLQKEKKILSGEK
BTF2        PESFMPSASPWMVALAVILTASPWMVSMTVILAVFIIFMAVSICCIKKLQREKKILSGEK
BTF5        ADPFFRSAQRWIAALAR-------------TLPVLLLLLGGAGYFLWQQQEEKKTQFRKK
BTF3        ADPFFRSAQPWIAALAG-------------TLPISLLLLAGASYFLWRQQKEKIALSRET
BTF4        ADPFFRSAQPWIAALAG-------------TLPILLLLLAGASYFLWRQQKEITALSSEI
                        *.                . . .  .  .   *

BT          PRER----------RNEFS-------SKERLLEELKWKKATLHA----------------
BTF1        EFERETREIALKELEKERVQKEEELQVKEKLQEELRWRRTFLHA----------------
BTF2        KVEQE---------EKE---------IAQQLQEELRWRRTFLHA----------------
BTF5        KREQELREMAWSTMKQEQS-------TRVKLLEELRWRSIQYASRGERHSAYNEWKKALF
BTF3        ERE REMKEMGYAATEQEIS-------LREKLQEELKWRKIQYMARGEKSLAYHEWKMALF
BTF4        ESEQEMKEMGYAATEREIS-------LRESLQEELKRKKSST----------------
              *.            *             * ***. .

BT          --VDVTLDPDTAHPHLFLYEDSKSVRLEDSRQK---LPEKTERFDSWPCVLGRETFTSGR
BTF1        --VDVVLDPDTAHPDLFLSEDRRSVRRCPFRHLGESVPDNPERFDSQPCVLGRESFASGK
BTF2        --ADVVLDPDTAHPELFLSEDRRSVRRGPYRQR---VPDNPERFDSQPCVLGWESFASGK
BTF5        KPADVILDPKTANPILLVSEDQRSVQRAKEPQD---LPDNPERFDSQPCVLGWESFASGK
BTF3        KPADVILDPDTANAILLVSEDQRSVQRAEEPRD---LPDNPERFEWRYCVLGCESFISGR
BTF4        ------------------------------------------------------------

BT          HYWEVEVGDRTDWAIGVCRENVMKK-GFDPMTPENGFWAVELY-GNGYWALTPLRTPLPL
BTF1        HYWEVEVENVIEWTVGVCRDSVERK-GEVLLIPQNGFWTLEMH-KGQYRAVSSPDRILPL
BTF2        HYWEVEVENVMVWTVGVCRHSVERK-GEVLLIPQNGFWTLEMF-GNQYRALSSPERILPL
BTF5        HYWEVEVGDRKEWHIGVCSKNVQRK-GWVKMTPENGFWTMGLTDGNKYRTLTEPRTNLKL
BTF3        HYWEVEVGDRKEWHIGVCSKNVERKKGWVKMTPENGYWTMGLTDGNKYRALTEPRTNLKL
BTF4        ------------------------------------------------------------
```

Figure 3 (Page 1 of 2)

```
BT      AGPPRRVGIFLDYESGDISFYNMNDGSDIYTFSNVTFSGPLRPFFCLWSSGKKPLTICPI
BTF1    KESLCRVGVFLDYEAGDVSFYNMRDRSHIYTCPRSAFSVPVRPFFRLGC-EDSPIFICPA
BTF2    KESLCRVGVFLDYEAGDVSFYNMRDRSHIYTCPRSAFTVPVRPFFRLGS-DDSPIFICPA
BTF5    PKPPKKVGVFLDYETGDISFYNAVDGSHIHTFLDVSFSEALYPVFRILTLEPTALSICPA
BTF3    PEPPRKVGIFLDYETGEISFYNATDGSHIYTFPHASFSEPLYPVFRILTLEPTALTICPI
BTF4    ------------------------------------------------------------

BT      ADGPERVTVIANAQDLSKEIPLSPMGEESAPRDADTLHSKLIPQPSQGAP---------
BTF1    LTGANGVTVP----------------EEGLTLHRVGTHQSL-------------------
BTF2    LTGASGVMVP----------------EEGLKLHRVGTHQSL-------------------
BTF5    ------------------------------------------------------------
BTF3    PKEVESSPDPDLVPDHSLETPLTPGLANESGEPQAEVTSLLLPAHPGAEVSPSATTNQNH
BTF4    ------------------------------------------------------------

BT      ----------
BTF1    ----------
BTF2    ----------
BTF5    ----------
BTF3    KLQARTEALY
BTF4    ----------
```

Figure 3 (Page 2 of 2)

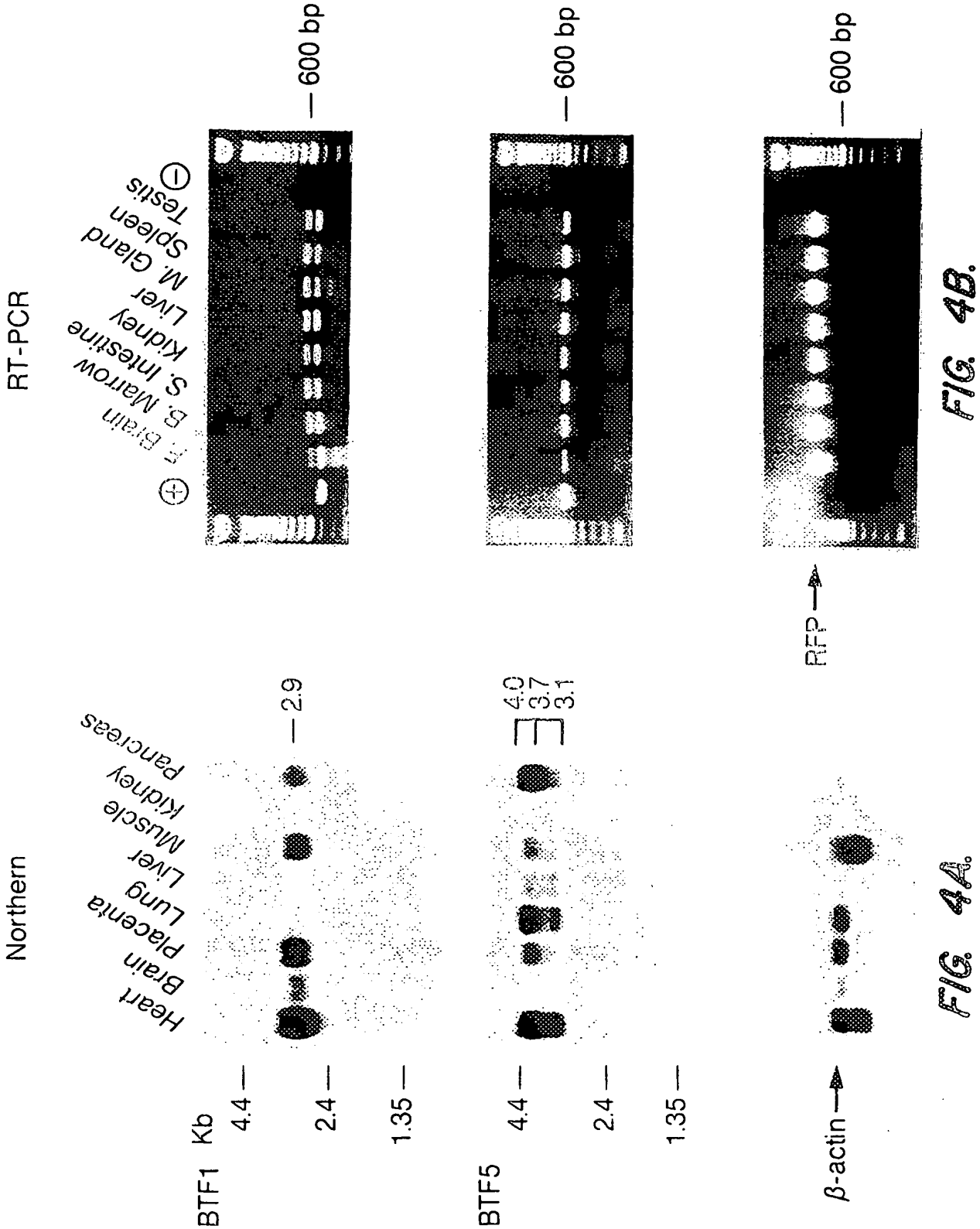

RT-PCR
⊕
F. Brain
S. Marrow
S. Intestine
Kidney
Liver
M. Gland
Spleen
Testis
⊖
600 bp
600 bp
600 bp
RFP
Northern
Heart
Brain
Placenta
Lung
Liver
Muscle
Kidney
Pancreas
2.9
4.0
3.7
3.1
Kb
4.4
2.4
1.35
BTF1
BTF5
β-actin

FIG. 4B.

FIG. 4A.


CYSTEINE-RICH DOMAIN
52 kD Ro MASAARLTMMWEEVTCPICLDPFVEPVSIECGHSFCQECISQVGKGGGS--------VCPVCRQRFLLKNLRPNRQLAMMVN
RoRet MASTTSTKKMMEEATCSICLSLMTNPVSINCGHSYCHLCITDFFKNPSQKQLRQETFCCPQCRAPFHMDSLRPNKQLGSLIE
52 kD Ro NLKKISQEAREGTQGERCAVHGERLHLFCEKDGKALCWVCAQSKKHRDHAMVPLEEAAQEYQEKLQVALGELRRKQELAEKL
RoRet ALKKTDQEM-------SCEEHGEQFHLFCEDEGQLICWRCERAPQHKGHTTALVEDVCQGYKEKLQKAVTKLKQLEDRCTEQ
52 kD Ro EVEIAIKRADWKKTVETQKSRIHAEFVQQKNFLVEEEQRQLQELEKDEREQLRILGEKEAKLAQQSQALQELISELDRRCHS
RoRet KLSTAMRITKWKEKVQIQRQKIRSDFKNLQCFLHEEEKSYLWRLEKEEQQTLSRLRDYEAGLGLKSNELKSHILELEKKCQG
52 kD Ro SALELLQEVIIVLERSESWNLKDLDITSPELRSVCHVP----GLKKMLRTCAVHITLDPDTANPWLILSEDRRQVRLGDTQQ
RoRet SAQKLLQNVNDTLSRSWAVKLETSEAVSLELHTMCNVSKLYFDVKKMLRSHQVSVTLDPDTAHHELILSEDRRQVTRGYTQE
B30-2 DOMAIN
52 kD Ro SIPGNEERFDSYPMVLGAQHFHSGKHYWEVDVTGKEAWDLGVCRDSVRRKGHFLLSSKSGFWTIWLWNKQKYEAGTYPQTPL
RoRet NQDTSSRRFTAFPCVLGCEGFTSGRRYFEVDVGEGTGWDLGVCMENVQRGTGMKQEPQSGFWTLRLCKKKGYVALTSPPTSL
52 kD Ro HLQVPPCQVGIFLDYEAGMVSFYNITDHGSLIYSFSECAFTGPLRPFFSPGFNDGGKNTAPLTLCPLNIGSQGSTDY
RoRet HLHEQPLLVGIFLDYEAGVVSFYNG-NTGCHIFTFPKASFSDTLRPYFQVYQYS------PLFLPPP--G----D--

FIG. 5A.

```
NPT1  MQMDNRLPPKKVPGFCSFRYGLSFLVHCCNVIITAQRACLNLTMVVMVNSTDPHGLPNTSTKKLLDNIKN----------
NPT3  --MDGKPATRKGPDFCSLRYGLALIMHFSNFTMITQRVSLSIAIIAMVNTTQQQGLSNASTEGPVADAFNNSSISIKEFDTK
NPT4  MQVDETLIPRKGPSLCSARYGIALVLHFCNFTTIAQNVIMNITMVAMVNSTSPQSQLNDSSE----------------------
         *      * *  ** ***     *  *     *          *** *      * *

NPT1  -PMYNWSPDIQFIILSSTSYGVIIIQVPVGYFSGIYSTKKMIGFALCLSSVLSLLIPPAAGIGVAWVVVCRAVQGAAQGIVA
NPT3  ASVYQWSPETQGIIFSSINYGIILTLIPSGYLAGIFGAKKMLGAGLLISSLLTLFTPLAADFGVILVIMVRTVQGMAQGMAW
NPT4  ------------------------VLPVDSFGGLSKAPKSLP------------------------------AKSSIL
                               *     *     *                                      *

NPT1  TAQFEIYVKWAPPLERGRLTSMSTSGFLLGPFIVLLVTGVICESLGWPMVFYIFGACGCAVCLLWFVLFYDDPKDHPCISIS
NPT3  TGQFTIWAKWAPPLERSKLTTIAGSGSAFGSFIILCVGGLISQALSWPFIFYIFGSTGCVCCLLWFTVIYDDPMHHPCISVR
NPT4  GGQFAIWEKWGPPQERSRLCSIALSGMLLGCFTAILIGGFISETLGWPFVFYIFGGVGCVCCLLWFVVIYDDPFSYPWISTS
        ** *  ** ** **  *     **   * *     * *   * **  *****  **  *****   ****   * **

NPT1  EKEYITSSLVQQVSSSRQSLPIKAILKSLPVWAISIGSFTFFWSHNIMTLYTPMFINSMLHVNIKENGFLSSLPYLFAWICG
NPT3  EKEHILSSLAQQPSSPGRAVPIKAMVTCLPLWAIFLGFFSHFWLCTIILTYLPTYISTLLHVNIRDSGVLSSLPFIAAASCT
NPT4  EKEYIISSLKQQVGSSKQPLPIKAMLRSLPIWSICLGCFSHQWLVSTMVVYIPTYISSVYHVNIRDNGLLSALPFIVAWVIG
      *** * *** **  *     ****    ** * *  * *   *       * *  *    ****   * ** **   *

NPT1  NLAGQLSDFFLTRNILSVIAVRKLFTAAGFLLPAIFGVCLPYLSSTFYSIVIFLILAGATGSFCLGGVFINGLDIAPRYFGF
NPT3  ILGGQLADFLLSRNLLRLITVRKLFSSLDMQVSSWE------------------SQGDLGSSQES-SLPLPLDSSS-----
NPT4  MVGGYLADFLLTK-KFRLITVRKIATILGSLPSSALIVSLPYLNSGYITATALLTLSCGLSTLCQSGIYINVLDIAPRYSSF
         * * ** *       * ***                                                **

NPT1  IKACSTLTGMIGGLIASTLTGLILKQDPESAWFKTFILMAAINVTGLIFYLIVATAEIQDWAKEKQHTRL
NPT3  ----VRILSLVGGMSFSCLL-----QSTCLAWSFTSRLDKQNFKTGPKRGPLPASEDIKLQT--------
NPT4  LMGASRGFSSIAPVIVPTVSGFLLSQDPEFGWRNVFFLLFAVNLLGLLFYLIFGEADVQEWAKERKLTRL
                              *     *     *     *
```

FIG. 5B.

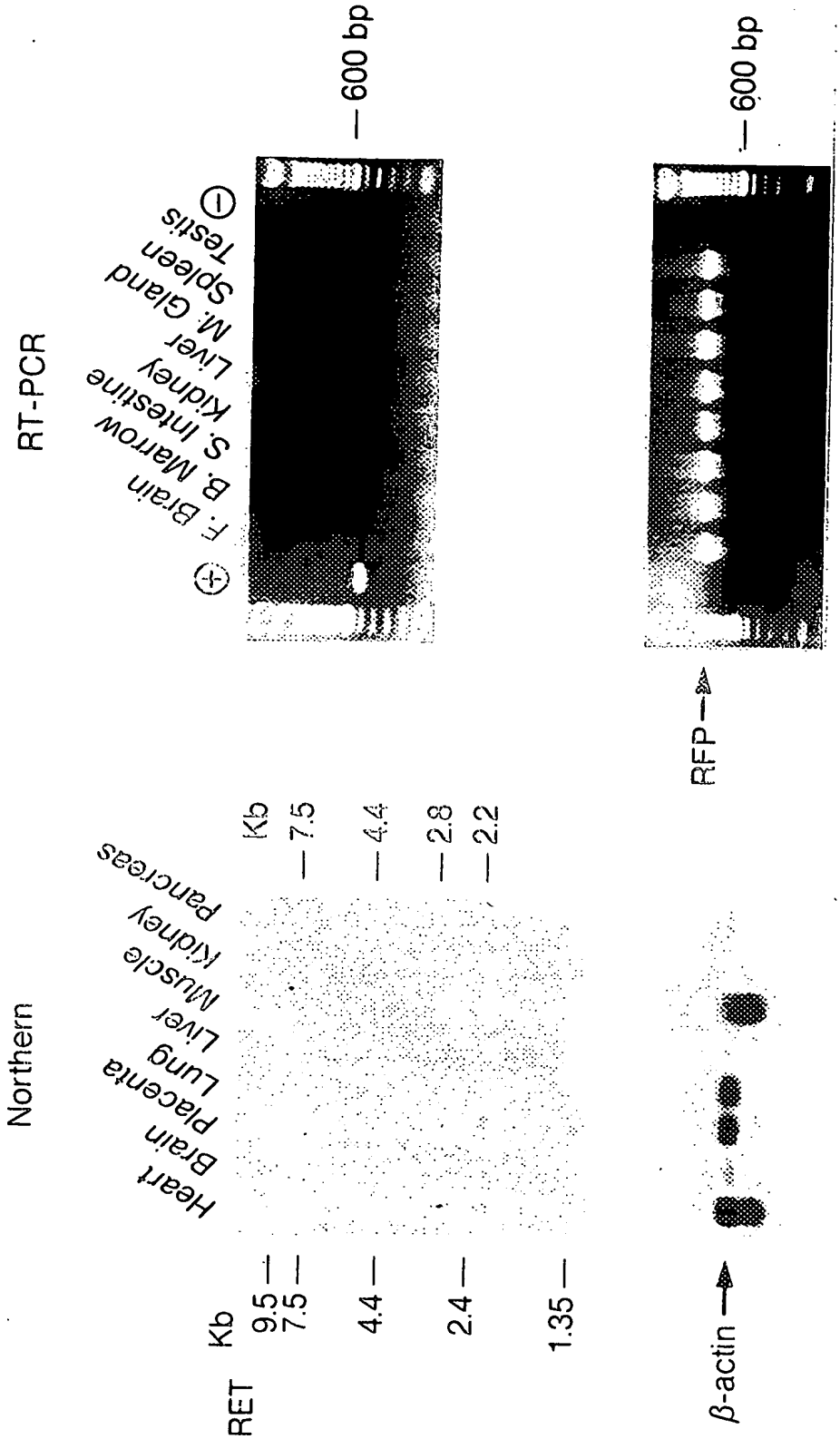
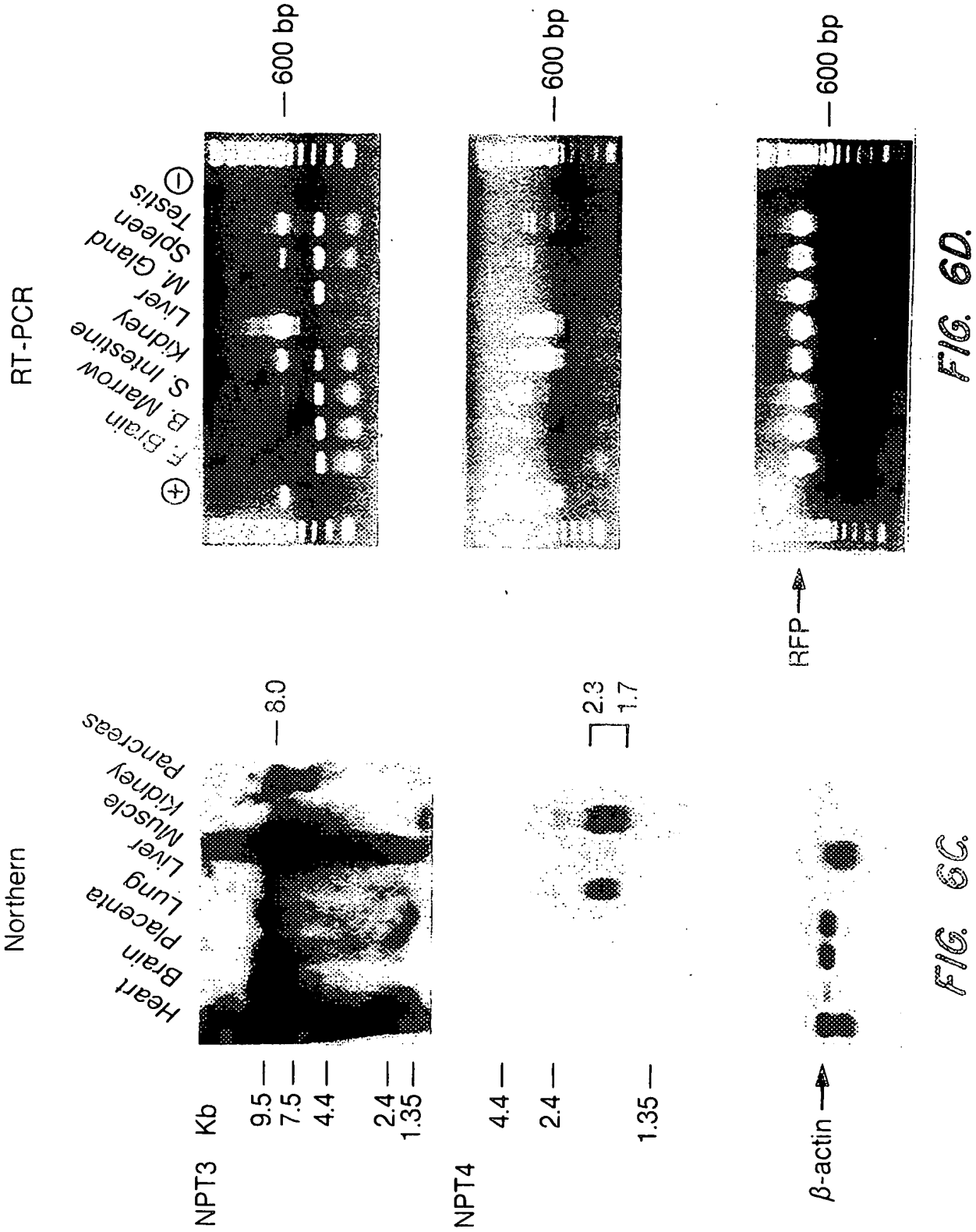

RT-PCR
600 bp
⊕ F. Brain
B. Marrow
S. Intestine
Kidney
Liver
M. Gland
Spleen
⊖ Testis
RFP
600 bp
Northern
Kb
7.5
4.4
2.8
2.2
Heart
Brain
Placenta
Lung
Liver
Muscle
Kidney
pancreas
Kb
9.5
7.5
4.4
2.4
1.35
RORET
β-actin

FIG. 6B.

FIG. 6A.


RT-PCR
— 600 bp
⊕ F. Brain
B. Marrow
S. Intestine
Kidney
Liver
M. Gland
Spleen
Testis ⊖
RFP
β-actin
FIG. 6D.
Northern
Heart
Brain
Placenta
Lung
Liver
Muscle
Kidney
Pancreas
— 8.0
2.3
1.7
NPT3 Kb
9.5
7.5
4.4
2.4
1.35
NPT4
4.4
2.4
1.35
FIG. 6C.

>CDNA21

cgacccacgcgtccgaacatggcgacctaggagaaagggaagaacaatttttctcctcttttgggaagg
tttgcgtctagtagtgcctgtgcccctgggcagattggagagaagagggacgactggagaatcgtcgaga
accagcggagaaaagaaaaagcaacgtttaattctagaaggcctcctgtccctgcctgctctgggtgctc
atggaatcagctgctgccctgcacttctcccggccagcctccctcctcctcctcctcctcagcctgtgtg
cactggtctcagcccagtttattgtcgtggggcccactgatcccatcttggccacggttggagaaaacac
tacgttacgctgccatctgtcacccgagaaaaatgctgaggacatggaggtgcggtggttccggtctcag
ttctcccccgcagtgtttgtgtataaaggtggcagagagagaacagaggagcagatggaggagtaccgag
gaagaaccacctttgtgagcaaagacatcagcaggggcagcgtggccctggtcatacacaacatcacagc
ccaggaaaacggcacctaccgctgttacttccaagaaggcaggtcctacgatgaggccatcctgcacctc
gtagtggcaggactaggctctaagcccctcatttcaatgaggggccatgaagacgggggcatccggctgg
agtgcatatctagagggtggtacccaaagcccctcacagtgtggagggacccctacggtggggttgcgcc
tgccctgaaagaggtctccatgcctgatgcagacggcctcttcatggtcaccacggctgtgatcatcaga
gacaagtctgtgaggaacatgtcctgctctatcaacaacaccctgctcggccagaagaaagaaagtgtca
tttttattccagaatcctttatgcccagtgtgtctccctgtgcagtggccctgcctatcattgtggttat
tctgatgatacccattgccgtatgcatctattggatcaacaaactccaaaaggaaaaaaagattctgtca
ggggaaaaggagtttgaacgggaaacaagagaaattgctctaaaggaactggagaaagaacgtgtgcaaa
aagaggaagaacttcaagtaaaagagaaacttcaagaagaattgcgatggagaagaacattcttacatgc
tgttgatgtggtcctggatccagacaccgctcatcccgatctcttcctgtcagaggaccggagaagtgtg
agaaggtgccccttcaggcacctaggggagagcgtgcctgacaacccagagagattcgacagtcagcctt
gtgtcctaggccgggagagcttcgcttcagggaaacattactgggaggtggaggtggaaaacgtgattga
gtggactgtgggggtctgtagagacagtgttgagaggaaaggggaggtcctgctgattcctcagaatggc
ttctggaccttggagatgcataaagggcaataccgggccgtgtcctcccctgataggattctccctttga
aggagtccctttgccgggtgggcgtcttcctggactatgaagctggagatgtctccttctacaacatgag
ggacagatcgcacatctacacatgtccccgttcagccttttccgtgcctgtgaggcccttcttcaggttg
gggtgtgaggacagccccatcttcatctgccctgcactcacaggagccaatggggtcacggtgcctgaag
agggcctgacacttcacagagtggggacccaccagagcctatagaatcaattccttggtctcacagccat
gtagacaagccctggtcatctcagcagccaccgcacaacacccctggtggaagacacgccctcctcccct
ctggtcacacaagagaacatcttccagctgcctctttcacacccactacagacctcagccccagttttct
cctcctcactaggctgtgtttttagtagttcctttgcttgtaactatgggatgggatccaggcataggga
actagttgttacacagctcccagccaagaagaaagtgtgagaagttgatgggcagcaaacctgctgttta
acatcagggtgaccacattaagcccagtattccagttggcaccagaagatatggacttggaatgaggcct
acagggttcaccaggatgtaagaggagagaggaatccacaggaccaccagagaggagagggaaccagata
tgcagatcagagatagaggaagtggaaccagagagctgggagggaccaaggttgtaagggtggctaagtc
ccaccataacagctaaggggacctgggagatgatggctcatttccacccagccccaggatttccagagcg
cacatccacaggcctggacctgggatgaagatgaatgaagaacatggatgcacgtggatgtagtttggct
caggtgtccctgcagttggcaaggagtcagtactcagtccctgagtgtggctgaaatttgaggtcctggc
tgagccaaggagtaatggaccagatctacctcagtattcaagttcagtggggacaccagtggcttcaaac
ttcctggtttcatgatatcttgagacgccttacaaatgatggaggattccaaagagtttttgtttatttg
ggttaatatttgttggtatttatggcatttgagattgaaactaagaaatgttttaatttattacctttac
aacatttatttacattacatacatacatttacaacatttattaatttatattaaaatagcatgaataagc
caattataggttaatataagtagaatgtttgtgaaaaataagtatggtatccaaagcaaaataaatttta
ttgtgaagtgtgaaaaaaaaaaaaaaaaaaaaa

>CDNA29

acgcgtccgcttcggaatgagagactcaaccataatagaaagaatggagaactattaaccaccattcttc
agtgggctgtgattttcagaggggaatactaagaaatggttttccatactggaacccaaaggtaaagaca
ctcaaggacagacatttttggcagagcatagatgaaaatggcaagttccctggctttccttctgctcaac
tttcatgtctcccctcttcttggtccagctgctcactccttgctcagctcagttttctgtgcttggaccct
ctgggcccatcctggccatggtgggtgaagacgctgatctgccctgtcacctgttcccgaccatgagtgc
agagaccatggagctgaggtgggtgagttccagcctaaggcaggtggtgaacgtgtatgcagatggaaag
gaagtggaagacaggcagagtgcaccatatcgagggagaacttcgattctgcgggatggcatcactgcag
ggaaggctgctctccgaatacacaacgtcacagcctctgacagtggaaagtacttgtgttatttccaaga
tggtgacttctacgaaaaagccctggtggagctgaaggttgcagcattgggttctgatcttcacattgaa
gtgaagggttatgaggatggagggatccatctggagtgcaggtccactggctggtacccccaaccccaaa
taaagtggagcgacaccaagggagagaacatcccggctgtggaagcacctgtggttgcagatggagtggg
cctgtatgcagtagcagcatctgtgatcatgagaggcagctctggtgggggtgtatcctgcatcatcaga

Figure 7 (1 of 6)

aattccctcctcggcctggaaaagacagccagcatatccatcgcagacccctttcttcaggagcgcccagc
cctggatcgcggccctggcagggaccctgcctatctcgttgctgcttctcgcaggagccagttacttctt
gtggagacaacagaaggaaaaaattgctctgtccagggagacagaaagagagcgagagatgaaagaaatg
ggatacgctgcaacagagcaagaaataagcctaagagagaagctccaggaggaactcaagtggaggaaaa
tccagtacatggctcgtggagagaagtctttggcctatcatgaatggaaaatggccctcttcaaacctgc
ggatgtgattctggatccagacacggcaaacgccatcctccttgtttctgaggaccagaggagtgtgcag
cgtgctgaagagccgcgggatctgccagacaaccctgagagatttgaatggcgttactgtgtccttggct
gtgaaaacttcacatcagggagacattactgggaggtggaagtgggggacagaaaagagtggcatattgg
ggtatgtagtaagaacgtggagaggaaaaaaggttgggtcaaaatgacaccggagaacggatactggact
atgggcctgactgatgggaataagtatcgggctctcactgagcccagaaccaacctgaaacttcctgagc
ctcctaggaaagtggggatcttcctggactatgagactggagagatctcgttctataatgccacagatgg
atctcatatctacacctttccgcacgcctctttctctgagcctctatatcctgttttcagaattttgacc
ttggagcccactgccctgaccatttgcccaataccaaaagaagtagagagttcccccgatcctgacctag
tgcctgatcattccctggagacaccactgaccccgggcttagctaatgaaagtggggagcctcaggctga
agtaacatctctgcttctccctgcccaccctggagctgaggtctccccttctgcaacaaccaatcagaac
cataagctacaggcacgcactgaagcactttactgatattcattccattattccatatgacagttgtttt
gagtttcgtaccaccttattgtccccttatacagataaggaaactggggtgcagaaaggtgaattaactt
tacaaagtagacatgacaagtgaacagcagagctgggatctaaacagcaataactaacattaacagagaa
tttaaaatgttcttagtgctgtgttataagctttggtggatgtcactcctttaatcctcacaacaccctg
tcgggtagtcatattttgcaagtatggaagctgaggcagggcaacatgaagtaacttacataattcatac
agtaatttgtgcagttgggagatgttcagccttagtccctggctaattgcctgttcttttccagcctgat
ttttttcccacaggaagagcccacatgtagccctgaggtttccttcccaggacagctgcagggtagaga
tcattttaagtgcttgtggagttgacatccctattgactctttcccagctgatatcagagacttagaccc
agcactccttggattagctctgcagagtgtcttggttgagagaataacctcatagtaccaacatgacatg
tgacttggaaagagactagaggccacacttgataaatcatggggcacagatatgttcccacccaacaaat
gtgataagtgattgtgcagccagagccagccttccttcaatcaaggtttccaggcagagcaaatacccta
gagattctctgtgatataggaaatttggatcaaggaagctaaaagaattacagggatgtttttaatccca
ctatggactcagtctcctggaaataggtctgtccactcctggtcattggtggatgttaaacccatattcc
tttcaactgctgcctgctagggaaaactgctcctcattatcatcactattattgctcaccactgtatccc
ctctacttggcaagtggttgtcaagttctagttgttcaataaatgtgttaataatgaaaaaaaaaaa

>CDNA23

atttgctttctctttttccttttcttccggatgagaggctaagccataatagaaagaatggagaattattg
attgaccgtctttattctgtgggctctgattctccaatgggaataccaagggatggttttccatactgga
acccaaaggtaaagacactcaaggacagacatttttggcagagcatagatgaaaatggcaagttccctgg
ctttccttctgctcaactttcatgtctccctcctcttggtccagctgctcactccttgctcagctcagtt
ttctgtgcttggaccctctgggcccatcctggccatggtgggtgaagacgctgatctgccctgtcacctg
ttcccgaccatgagtgcagagaccatggagctgaagtgggtaagttccagcctaaggcaggtggtgaacg
tgtatgcagatggaaaggaagtggaagacaggcagagtgcaccgtatcgagggagaacttcgattctgcg
ggatggcatcactgcagggaaggctgctctccgaatacacaacgtcacagcctctgacagtggaaagtac
ttgtgttatttccaagatggtgacttctatgaaaaagccctggtggagctgaaggttgcagcactgggtt
ctaatcttcacgtcgaagtgaagggttatgaggatggagggatccatctggagtgcaggtccaccggctg
gtacccccaaccccaaatacagtggagcaacgccaagggagagaacatcccagctgtggaagcacctgtg
gttgcagatggagtgggcctatatgaagtagcagcatctgtgatcatgagaggcggctccggggagggtg
tatcctgcatcatcagaaattccctcctcggcctggaaaagacagccagcatttccatcgcagacccctt
cttcaggagcgcccagccctggatcgcagccctggcagggaccctgcctatcttgctgctgcttctcgcc
ggagccagttacttcttgtggagacaacagaaggaaataactgctctgtccagtgagatagaaagtgagc
aagagatgaaagaaatgggatatgctgcaacagagcgggaaataagcctaagagagagcctccaggagga
actcaagaggaaaaaatccagtacttgactcgtggagaggagtcttcgtccgataccaataagtcagcct
gatgctctaatggaaaaatggccctcttcaagcctggtgaggaaatgcttcagatgaggctccaccttgt
taaataaattggatgtatggaaaaatagactgcagaaaaggggaactcatttagctcacgagtggtcgag
tgaagattgaaaattaacctctgagggccagcacagcagctcatgcctgtaatcctagcactttggaagg
ctgaggagggcggatcacaaggtcaggagatcaagaccatcctggctaacacggtgaaaccccgtctcta
ctaaaaatacaaaaaataaaaaattagccgggcatggtgacgggcacctgtagtcccagctactcgggag
gctgaggcaggagaatggcatgaacccggaaggcagagcttgcagtgagccgagatcacgccactgcact
ccagcctgggagacagagcgagactctgtctcaagaaaaaaaaaaaaaaaaaaaaa

Figure 7 (2 of 6)

>CDNA44
ctgaagcttgcatgcctgcaggtcgacccacgcgtccgcggacgcgtgggcggacgcgtgggtttttcct
ttcttccagaaggagatttaaccatagtagaaagaatggagaactattaactgccttccttctgtgggct
gtgattttcagaggggaatgctaagaggtgattttcaatgttgggactcaaaggtgaagacactgaagga
cagaatttttggcagaggaaagatcttcttcggtcaccatacttgagttagctctagggaagtggaggtt
tccatttggaattctatagcttcttccaggtcatagtgtctgcccccaccttccagtatctcctgatat
gcagcatgaatgaaaatggcaagtttcctggccttccttctgctcaactttcgtgtctgcctccttttgc
ttcagctgctcatgcctcactcagctcagttttctgtgcttggaccctctgggccatcctggccatggt
gggtgaagacgctgatctgccctgtcacctgttcccgaccatgagtgcagagaccatggagctgaagtgg
gtgagttccagcctaaggcaggtggtgaacgtgtatgcagatggaaaggaagtggaagacaggcagagtg
caccgtatcgagggagaacttcgattctgcgggatggcatcactgcagggaaggctgctctccgaataca
caacgtcacagcctctgacagtggaaagtactttgtgttatttccaagatggtgacttctatgaaaaagcc
ctggtggagctgaaggttgcagcactgggttctgatcttcacgttgatgtgaaggttacaaggatggag
ggatccatctggagtgcaggtccactggctggtacccccaaccccaaatacagtggagcaacaacaaggg
agagaacatcccgactgtggaagcacctgtggttgcagacggagtgggcctgtatgcagtagcagcatct
gtgatcatgagaggcagctctggggagggtgtatcctgtaccatcagaagttccctcctcggcctggaaa
agacagccagcatttccatcgcagacccccttcttcaggagcgcccagaggtggatcgccgccctggcacg
gaccctgcctgtcttgctgctgcttcttgggggagccggttacttcctgtggcaacagcaggaggaaaaa
aagactcagttcagaaagaaaaagagagagcaagagttgagagaaatggcatggagcacaatgaagcaag
aacaaagcacaagagtgaagctcctggaggaactcagatggagaagtatccagtatgcatctcggggaga
gagacattcagcctataatgaatggaaaaaggccctcttcaagcctgcggatgtgattctggatccaaaa
acagcaaaccccatcctccttgtttctgaggaccagaggagtgtgcagcgtgccaaggagccccaggatc
tgccagacaaccctgagagatttaattggcattattgtgttctcggctgtgagagcttcatatcagggag
acattactgggaggtggaggtaggggacaggaaagagtggcatatagggGtgtgcagtaagaatgtgcag
agaaaaggctgggtcaaaatgacacctgagaatggattctggactatggggctgactgatgggaataagt
atcggactctaactgagcccagaaccaacctgaaacttcctaagccccctaagaaagtgggggtcttcct
ggactatgagactggagatatctcattctacaatgctgtggatggatcgcatattcatactttcctggac
gtctccttctctgaggctctatatcctgttttcagaattttgaccttggagcccacggccctgagtattt
gtccagcgtgaaaagaagaagagagttcctccaattctgaccgagtgctgatcattccctagagacacca
gtaaccccgggcttagctaacgaaagtggggagcctcaggctgaagtaacttttctctgcttctccctgc
ccagctcagagctgagggcctccccctccacagcaaccaatcacaaccataaagctacaagcacgcactg
aagcactttactgatactcattcaattattcatatgacagttgtttgagtttggtaccatcttatttttcc
ccttatacagataaggaaactggggtgcagaaaagtgaattgactacaaagtagacatgactagttaaca
acacagctgggatctaaacagcaataactaacattaatggagaacttaaaatgctctgagtgctgtgtta
tgagctttggtggatgtcactcctttaatcctcgcaacaccctgtcgggtagtctcatttagcaagtatg
gaagttgaggcagggcaacattaagcaacttacataactcatgcagtaatttctgcagttgggagatgtt
cagcttcagtccccggccctatggccgttcttttccaccctgtttcttcccccataggaagaacccacct
gtagccctgaggttcttttcccaggatggctccaggataaggatcactgtaggtggttgtggagttgaca
cccctgttgactccttcccagctgattgtcagagccttagacccagcacgccttggattagctttgcaga
gtgtcttggttgagagaataacctcaccgtacccacatgacacgtgatttggaaagagactagaggccac
acttgataaatcatggggaacagatgtgttccacccaacaaatgtgataagtgatcatgcagccagagcc
agccttccttcaatcaaggtttccaggcagagcaaataccctagagattttctgtgatataggaaatttg
gatgaagggagctagaagaaatacagggatttttttttttttttaagatggagtcttactctgttgctag
gctggagtgcagtggtgcgatctcagctccctgcaacctccacctcctgggttcaaacaattctcctgcc
tcagcctcccgagtactgggaatataggtgcacgccaccacacccaacaaatttttgtacttttagtaca
gatgagggttcactatgttggccaggatggtctcgatctcttgacctcatgatccacccacctcggtctc
ccaaagtgctgggattacaggcttgagccaccgggtgaccggcttacagggatatttttaatcccgttat
ggactctgtctccaggagaggggtctatccacccctgctcattggtggatgttaaaccaatattccttttc
aactgctgcctgctagggaaaaactactcctcattatcatcattattattgctctccactgtatcccctc
tacctggcatgtgcttgtcaagttctagttgttcaataaatttgttaataatgctgaaaaaaaaaaaaaaa
aaaaaaaaaaaaaaaaaaaaaa

>CDNA32
agagaacaggtcccagataccgagtccgcaaccccaaacatcgcgattaataggaggcctctggtctctg
cctgccctgggtgctcatggaaccagctgctgctctgcacttctccctgccagcctccctcctcctcctc
ctgctcctcctccttctcagcctgtgtgcactggtctcagcccagtttactgtcgtggggccagctaatc
ccatcctggccatggtgggagaaaacactacattacgctgccatctgtcacccgagaaaaatgctgagga
catggaggtgcggtggttccggtctcagttctcccccgcagtgtttgtgtataagggtgggagagagaga

Figure 7 (3 of 6)

acagaggagcagatggaggagtaccggggaagaatcacctttgtgagcaaagacatcaacaggggcagcg
tggccctggtcatacataacgtcacagcccaggagaatgggatctaccgctgttacttccaagaaggcag
gtcctacgatgaggccatcctacgcctcgtggtggcaggccttgggtctaagcccctcattgaaatcaag
gcccaagaggatgggagcatctggctggagtgcatatctggagggtggtacccagagcccctcacagtgt
ggagggacccctacggtgaggttgtgcccgccctgaaggaggtttccatcgctgatgctgacggcctctt
catggtcaccacagctgtgatcatcagagacaagtatgtgaggaatgtgtcctgctctgtcaacaacacc
ctgctcggccaggagaaggaaactgtcatttttattccagaatcctttatgcccagcgcatctccctgga
tggtggccctagctgtcatcctgaccgcatctccctggatggtgtccatgactgtcatcctggctgtttt
catcatcttcatggctgtcagcatctgttgcatcaagaaacttcaaagggaaaaaaagattctgtcaggg
gaaaagaaagttgaacaagaggaaaaagaaattgcacagcaacttcaagaagaattgcgatggagaagaa
cattcttacatgctgctgatgtggtcctggatccagacaccgctcatcccgagctcttcctgtcagagga
ccggagaagtgtgaggcggggcccctacaggcagagagtgcctgacaacccagagagattcgacagtcag
ccttgtgtcctgggatgggagagcttcgcctcagggaaacattactgggaggtggaggtggaaaacgtga
tggtgtggactgtgggggtctgcagacacagtgttgagaggaaaggggaggtcctgctgattcctcagaa
tggcttctggaccctggagatgtttggaaaccaatacgggccctgtcctcccctgagaggattctccct
ttgaaggagtccctttgccgggtgggcgtcttcctggactatgaagctggagatgtctccttctacaaca
tgagggacagatcacacatctacacatgtccccgttcagcctttactgtgcctgtgaggcccttcttcag
gttagggtctgatgacagccccatcttcatctgccctgcactcacaggagccagtggggtcatggtgcct
gaagagggcctgaaacttcacagagtggggacccaccagagcctatagaatcaattccttggactcacag
ccatgcagataagccctggccatctcagcagccaccgcacaacccccctaatgaaagacacgccctcctc
ccctctggtcacgtaagagaacatcttccagctgccttttcacacccactccagccctctgccccagtt
ttctcctcctcactagtctgtggctttagtagttcctttgcttgtaattatgggatgggatccaggcata
gggaactagttgtttcatagctcccagtcaaaaagaaagtgagagaagctgttgggcagtgaacctactg
tttaaaatcaggataaccacattaagcccaatatgccagttggcaccagatgctgtggacttggaatgag
gccaacagggttcaccaggatgagagaggagagaggaatccacaggaccaccagaagggagagggaacca
gatatgcagatcagagatagaggaagtggaaccagagagctgggagggaccaaggttgtaaggatggcta
agtcccaccataagagctaaagggtcctgggagatgatggctcatttccacccaaccccaggatttccac
agcacacacccacaggcctggacctgggatgaagatgaatgaagaacatggactcatgtggatgtggttt
ggctcagatgtccctgcaataaacaaggggtcagtacttagtccctgagtgtggttgaggtttgaggtcc
tggtcgagcagggcagtactggaccaggtctacgtcagcattcaggttcaatggggacaccagtggcttc
aaacttcctgatctaattatgtttttagacacttagaagttattgaggactttaaagagcttttgtttat
ttgggttaatatttatgacatttgacattgaaacaaaaatttaaaatgttatcttttaatttatgttaaa
atagcattaataaatcagttataggttaatgtagataggatgttttgtgaaaaagcaatctattgtgtcc
aaataaaaaaaacaaaaagtgtgacactggttaacttttccagatctcatgtctggcttaataagagat
atttgtattatcatatctgcctttgtattaaacctattggtatatcataggtcatgttagctcaaaaaaa
ctttactgcacactactgagagaatgagatgaaaaacgattaatgtttcattattattattgtgaaaata
ttattaacactggggactccttaagagtacatcagagttctctctaggaatcccaaaaccacattttgaa
actagaatagtggatcctggaagttaatccatgtgctggttaattttagatgtcaacctggtgtttccag
aagagattggcaagtgagtcagtgggaaattctctccttctgttggctgggtgcccaatacaacaaaaag
gcagaggaaaggcaaattcttctctcctctggagctgagacactcttcttcttctgcccttggacatcag
aactcctggctctccggcctttgaacttcaggacttgtaccaggaggccctgggttctcaggcctttggc
tttggactgagagttacacaatcagcttccctggttctgaggctttcagacttaaactgagccatgctac
cagcatcccagggtctccagcctacagatgagctgttgtgcgatttcttagcctccataatcacatgagc
caatctccttaataaatgcctgctcatagatctgtatctacatctatatctgtatgtgcatctatatcta
tgcctatatctatatctatatcatattgattttgtctctctggagaaccctgactaataaaatgaggcat
ctaaaaaaaaaaaaaaaa

CDNA27>
gacccacgcgtccgaaaagctatggcctcaaccaccagcaccaagaagatgatggaggaagccacctgct
ccatctgcctgagcctgatgacgaacccagtaagcatcaactgtggacacagctactgccacttgtgtat
aacagacttctttaaaaacccaagccaaaagcaactgaggcaggagacattctgctgtccccagtgtcgg
gctccatttcatatggatagcctccgacccaacaagcagctgggaagcctcattgaagccctcaaagaga
cggatcaagaaatgtcatgtgaggaacacggagagcagttccacctgttctgcgaagacgaggggcagct
catctgctggcgctgtgagcgggcaccacagcacaaagggcacaccacagctcttgttgaagacgtatgc
cagggctacaaggaaaagctccagaaagctgtgacaaaactgaagcaacttgaagacagatgtacggagc
agaagctgtccacagcaatgcgaataactaaatggaaagagaaggtacagattcagagacaaaaaatccg
gtctgactttaagaatctccagtgtttcctacatgaggaagagaagtcttatctctggaggctggagaaa
gaagaacaacagactctgagtagactgagggactatgaggctggtctggggctgaagagcaatgaactca

Figure 7 (4 of 6)

agagccacatcctggaactggaggaaaaatgtcagggctcagcccagaaattgctgcagaatgtgaatga
cactttgagcaggagttgggctgtgaagctggaaacatcagaggctgtctccttggaacttcatactatg
tgcaatgtttccaagctttacttcgatgtgaagaaaatgttaaggagtcatcaagttagtgtgactctgg
atccagatacagctcatcacgaactaattctctctgaggatcggagacaagtgactcgtggatacaccca
ggagaatcaggacacatcttccaggagatttactgccttcccctgtgtcttgggttgtgaaggcttcacc
tcaggaagacgttactttgaagtggatgttggcgaaggaaccggatgggatttaggagtttgtatggaaa
atgtgcagaggggcactggcatgaagcaagagcctcagtctggattctggaccctcaggctgtgcaaaaa
gaaaggctatgtagcacttacttctcccccaacttcccttcatctgcatgagcagcccctgcttgtggga
atttttctggactatgaggccggagttgtatccttttataacgggaatactggctgccacatctttactt
tcccgaaggcttccttctctgatactctccggccctatttccaggtttatcaatattctcctttgtttct
gcctcccccaggtgactaaggaaaagagcagaagctccttggtttaaccagcacagagaaaataatataa
atcccataagggcagacgtttggtctgttttcttcgctgtcatttccttagtagttagactagtgctgag
attttagtggatatataattgatttatgttgaatatatggacttagcaactaaaaataccacagatggtt
aacctggactggggcaaagcaagataatagtgatgatcgtatgttgctgtctccatccgtctttaatggg
tcagggctttgatttccaagggtcttcaggtgatgagtaggggtacccacaagtcagaaggtctgcgttc
tcctagtttgtttgctgccatttgaactcatgtagggaatgaaagaaagctgcaattatccgccaactgc
atttaaaacaaaacaaaacagaaaaatcaaaataacattgactcttccaaccactgacatgttgtttaat
aatctaagcggcagtcctggaggctaccagacttactgagttctacctgagaaacagccaagcaaagtgt
gagagaagggttaagactggcttacaatgagatgcttcaaatgaaaagggaattatgagtaaaattgaac
tttgatgggggattcagttctggaaaagaatttggtattttccagtctgctaggaccaattaccttgaaa
tattttaaaatctcagtaaatagttattgctgaaatggctgttggcagttcttattatgattcagagaag
agcaaatagaccttaacttcattttgaaaaagaccaaattaccatacccgagtgagtaatgacaggacta
caactaaaacataaacaacattaatgatgaccataaaaagtcacaaaattgctaaatgttataatttaga
gttgacataaaaattgatggccaggcatggtggctcacgcctgtaatcccagaactatgtgaggctgagg
caggtggatcacttgaggtcaggagttcaacaccagcctggccaacatggtgaaaccctgtctctactaa
aaatacaaaaattagccgggcatggtggtaggggcctgtaacccagctactcgtgaggccaaggcaggag
aattgcttgagcctgcagcagctgcagtaagccaagatcatgctgtgcctcaaggaaaaaaaaaattaat
gtttactgatatttgttgaagtcctacaacatcacctctgagaataggagaaatgaagcaacagttgtgt
ctagatgtcagaggcatggctgggcctccatctctgcctaagggagatataaaagagttcaaactattgc
ccatgttccccagggtcagaagttctaattatgatgatagaggctgggttgtaagtagtaagtgaagggt
agcagaatatgccatctttggcataagaagtattttgagttgaagacaattgagaaaaaaaaaaaaaaaa
aa

>CDNA22B
ggacagaaaactccctccttttccaagttagccttatagtctagggcttaaaatactggtttaatggtga
aggtaagtgcttttcttcttttgggtagaaggattattactaacttaccaaaggtccattaaggggagg
gaacagttttaggagaagtcagagaaaagacattaacagcaacataaggatctccatctggtaatattgc
ctaattccaaaatgaagagactctctgaaaaagataactgattcaatgaagaccctagggcaaggcttga
gaagccactggtaccaatggacactgtggacaatggtcatttctccaaggacgctataaaagactgtcgt
agtaaaagagattcagggcacagggaaactccaccacaaagcgtggtaccatttcccacagaagctaaat
ggacgggaagcctgccaccaggaaaggtccagatttctgttcattacgctatgggctggctcttatcatg
cacttctcaaacttcaccatgataacgcagcgtgtgagtctgagcattgcgatcatcgccatggtgaaca
ccactcagcagcaaggtctatctaatgcctccactgaggggcctgttgcagatgccttcaataactccag
catatccatcaaggaatttgatacaaaggcctctgtgtatcaatggagcccagaaactcagggtatcatc
tttagctccatcaactatgggataatactgactctgatcccaagtggatatttagcagggatatttggag
caaaaaaaatgcttggtgctggtttgctgatctcttcccttctcaccctctttacaccactggctgctga
cttcggagtgattttggtcatcatggttcggacagtccagggcatggcccagggaatggcatggacaggt
cagtttactatttgggcaaagtgggctcctccacttgaacgaagcaagctcaccaccattgcaggatcag
ggtcagcatttggatccttcatcatcctctgtgtgggggactaatctcacaggccttgagctggccttt
tatcttctacatctttggtagcactggctgtgtctgctgtctcctatggttcacagtgatttatgatgac
cccatgcatcacccgtgcataagtgttagggaaaaggagcacatcctgtcctcactggctcaacagccca
gttctcctggacgagctgtccccataaaggcgatggtcacatgcctaccactttgggccattttcctggg
ttttttcagccatttctggttatgcaccatcatcctaacatacctaccaacgtatatcagtactctgctc
catgttaacatcagagatagtggagttctgtcctccctgccttttattgctgctgcaagctgtacaattt
taggaggtcagctggcagatttccttttgtccaggaatcttctcagattgatcactgtgcgaaagctctt
ttcatctcttgatatgcaagtttcctcatgggaatctcaaggggatttgggctcatcgcaggaatcatct
cttccactgccactggattcctcatcagtcaggattttgagtctggttggaggaatgtctttttcctgtc
tgctgcagtcaacatgtttggcctggtcttttacctcacgtttggacaagcagaacttcaagactgggcc

Figure 7 (5 of 6)

aaagagaggacccttacccgcctctgaggacataaagttacaaacttaaatgtggtactgagcatgaact
ttttaaacatttttacttctctccatattcctgaccatagactcagcagttcttaactctggctgtgtg
ttagtcttccctggggagcctttataagacactgatacttgggacccactccagagattctgaatgaatt
ggtctggggtggaacccagatactactaatttttagatactccttagaggtttctagcatgcgcccgggg
ttgacaacagctggacaaacttgaaaagtcaattcatgtggcctttgaattttcctcattggaaagtact
aaataaataaaaattcatgtgaaaatgatcactgataaatatcttcatggtggggcaggttattggatgc
agagaagatctgctcggaattgtagccatatgttacagatctcagcaccgatcagaactgtaaagctata
atccccagaattaaagtttttattatttttttatacattgtaaaacatagacgtttatttatgtgattaaa
ttctattaaaatttacatgctaaaataaaaaaaaaaaaaaa

>CDNA22E
acgcgtccgcccacgcgtccgcccacgcgtccggtcggggccagagcgcaggtgtacctggcggccgtgc
tggagcacctgaccgccgagatcctggagctggctggcaacccggcccgcgacaagaagacccgcatcat
cctgcgccacctgtagctggccattcgcaacggcgaggagcttaacaagctgctgggcgaagtcaccatc
gcgcagggcggtgtcctgcccaacattcagggcgtgcttctgccccagaagaccaagagccaccacaagg
ccaagggtgaaaaccattcactaggagaggagaaacacaatggccaccaagacagagttgagtcccacag
caagggagagcaagaacgcacaagatatgcaagtggatgagacactgatccccaggaaaggtccaagttt
atgttctgctcgctatggaatagccctcgtcttacatttctgcaatttcacaacgatagcacaaaatgtc
atcatgaacatcaccatggtagccatggtcaacagcacaagccctcaatcccagctcaatgattcctctg
aggtgctgcctgttgactcatttggtggcctaagtaaagccccaaagagtcttcctgcaaagtcctcaat
acttgggggtcagtttgcaatttgggaaaagtggggccctccacaagaacgaagcagactctgcagcatt
gctttatcaggaatgttactgggatgctttactgccatcctcataggtggcttcattagtgaaacccttg
ggtggccctttgtcttctatatctttggaggtgttggctgtgtctgctgccttctctggtttgttgtgat
ttatgatgacccctttcctatccatggataagcacctcagaaaaagaatacatcatatcctccttgaaa
caacaggtcgggtcttctaagcagcctcttcccatcaaagctatgctcagatctctacccatttggtcca
tatgtttaggctgtttcagccatcaatggttagttagcacaatggttgtatacataccaacttacatcag
ctctgtgtaccatgttaacatcagagacaatggacttctatctgcccttccttttattgttgcctgggtc
ataggcatggtgggaggctatctggcagatttccttctaaccaaaaagtttagactcatcactgtgagga
aaattgccacaattttaggaagtctcccctcttcagcactcattgtgtctctgccttacctcaattccgg
ctatatcacagcaactgccttgctgacgctctcttgcggattaagcacattgtgtcagtcagggatttat
atcaatgtcttagatattgctccaaggtattccagttttctcatgggagcatcaagaggattttcgagca
tagcacctgtcattgtacccactgtcagcggatttcttcttagtcaggaccctgagtttgggtggaggaa
tgtcttcttcttgctgtttgccgttaacctgttaggactactcttctacctcatatttggagaagcagat
gtccaagaatgggctaaagagagaaaactcactcgtttatgaagttatcccaccttggatggaaaagtca
ttaggcaccgtattgcataaaatagaaggcttccgtgatgaaaataccagtgaaaagatttttttttcct
gtggctcttttcaattatgagatcagttcattattttattcagacttttttttgagagaaatgtaagatg
aataaaaattcaaataaaatgataactaagaaaaaaaaaaaaaa

Figure 7 (6 of 6)

```
   1  CACACACACA CACACACACA CACACACACA CACACAAATG AGGTATATAA AGGGTCTCCT
  61  AAAATGTCAT CTGATATTTG TTATTTCATA TTCTCAGATT TTTAATCCAT TTAGGTAGGT
 121  CTATTTTAGA TAGCCTTGTC TGAAACAGAG CTGGGACCTG ATGAGTGAAA ATGAGCTCAC
 181  CAGAAGAAAA ATCAAACAGG CATTTCAGAG ATTGAGGCCA AGAAGTTAAA TGTCTTAAAT
 241  GGGCAGAGCT TAGCTGCTTG ATGTGAAAAG AGACCAGCGT GGCTGGAACA GCAAAGGAGA
 301  ACAGCAGAAG AGGTGAACAG AGGCCAGAGA TGGTCACTGA GTGGGCCCTT AAGTCATGGT
 361  AAGGAGTATG GAGAATGAAT TATTGCATGT ATTGAATATG TAGGTGACGT GACTCACAGA
 421  TACTTTGGAT TTGTAGAGAT GAAGGAAATG TAGCAAGTGA CACTCTTAGA ATGTTGATTT
 481  GAGTAAATGG TAGTGTCAGT TATTGAACTG GGGAGAACTG GAAGGGATAA CAGGCTTAAG
 541  GAGCACGTTT ATTCCTGTGT CTTGGAAGTG TTTAGGGTGA AAGACCTATT AGAGTTCTAA
 601  ATGGAGATGT CAAGTGAAAA TGTGGCTACA CACATTTGCA TTTCAGAAAA AAGGTCAGGC
 661  TGGAGATGTA AAATTGGAAG TTTACTGCAT ATAGATAGTC TTTGGAACCG TAGTATTGAT
 721  GAAGCCATTA ATGAGACAGA ACAAAGACTA GGGACCAGAG CCAAGCTCCA AGTTTCTAAA
 781  ATTTAGAGGA TAGTATAGTC TGGTCATTTT GAGGTGAATA CTTAATAACA GAACAATTTG
 841  TTGAAGTGTA AATTTAGAGC CCTACACTTT TAGCTCTGAC TATTAACGAA TACAGGAAAG
 901  AATGGATATG GTTATCTGCC TGGTGTCTGT GAAATAATTT AAGCCAGGAA GAGATCCTCA
 961  CCAGAAACTG ACTATGCTGG CAACTTGGAT CTTAGATTTC CAGCCTGCAG AATTGTTAGA
1021  AAATAAATGT CTATCGTTTA AGCCACCAGT CTGTAGTATT TTGTTATGGC AGTCCAAGCT
1081  GACTAAGTTT TGGTACCCAG GCGTGGGATG CTGCAACAAC AAATACCTAA ACATGGGGAA
1141  GTGGCTTTGG AAATTGGTGA TGGGTAAAGG CTGGAAGAGT TTGAGGTTCA TACTAGAAAA
1201  AGCCAATTGT GAAGGGACTA TTGAAAGAAA TATGGACATT AAAGGCAATT CTGGCAAAGG
1261  CTCAGAAAGG AAGAGAGCTG GACAGAAAGC TTCCATTTTC ATAGAAACTT AGATTTATAA
1321  CGATCATGGA TAGAATATTA AATATGCTGG TTAAAATATG GACTTTAGGC CAGGCGTGGT
1381  GGCTCACGCC TGTAATCTCA GCACTTTGGG AGGCTGAGGG CACAGATCAC GAGGTCGGGA
1441  GTTTGAGACC AGCCTGGCCA ATATGGCGAA ACCCTGTCTC TACTAAAAAT ACAAAAATTA
1501  GCTGGGCATG GTGATGTGCT TCTGTGGTCC CAGCTACTCG GGAGGCTGAG GCTGAAGAAT
1561  CGCTTAAACC CGGGGGGTGG AGGTTGCAGT GACCCAAGAT CACACCACTG CACTCCAGCC
1621  TGGGATACAG AGCAGGACTC CACTCCCCCC GCCACACACA CACAAAAAAT ATATATATAT
1681  GGACATTAAA GTCAACTCTT GTGAGGTCTC AGATGAAAAT GAGGGACAGG TTATTGGAAA
1741  CTGTAGAAAT CACTGTTCTT GTTACAATGT GTCAAGAACT TGGCTGAATT ACGCTGTAGT
1801  GTTTACTGGA AAGAACTTAT AAGCAGTAAA ACTGGATATT TACCAGAAGA GATGTCTAAG
1861  CAAAGTATTG AAGGTGTGAT TTAGGTCCTC CTTACTGCTT AAAGTGAAAT GTGAGAGGAA
1921  AGAGCCGAAA TAAAGAAGGA ATTTTTAAGC AAAACACAAT CAGAACTTGG AGATTTGGGA
1981  TAGATTTCTC AATCTATATT GTAAAAATTG AGAAAGTTTT TCTTGAAGAG GTATGGTTGA
2041  ACAATGTTTT CTTTTTCTTT TTTTTTCTTG GTTTTATTTT TATTTTTATG TTTTTTGAGA
2101  CAGGGTCTGG CTATGTCATC CAGGCTGGAG TGCAGTGGCA CAATCTCAGT TCAGTGCAAC
2161  CTTTGCCTTC AGGCTCAAGC AATCCTCCCA CCTCAGCCTC CTAAGTAGCT GGGACTACAT
2221  GTATGCACCA CCACACCCTG GCTAATTTTT TGTTGTTGTT TATAGAGATG GGGTTTTGAC
2281  ATGTTGCCTA GGCTGGTCTC TAACTCCTGA GCTCAAGTGA TCTGCCCTCC TCAGTCTCCC
2341  AAAGTGTTGG GATTACAGGC GTGAAACACT GAGCCTAGCC TGAACAACCA TTTGATAAAG
2401  AGATAATGGG TGTGACCCAA GGATTTAATC AGCCATCTCA GCAGAAGCCA GGAAGAGAGA
2461  TGGGATTATT CCAGCAGAGA CACTGCCAAT TTAAACTAAC GTAGGCAGAG AAAACAGAAA
2521  GGAACAAAGG AAGGTTGTCG ACTTTTTGAA TTCTATAGAA CAGGATCATA GAGCTACCTG
2581  GCTGTCAATG TGTACTATTC TTTAAGAAAA GGAAAGACTG ACCCACCAAA GGCAACTTAC
2641  AAGATCACTA GGGCTGACTC TTTTGTTTTT TCTTGAGGCA GTCTCACTGT CACCCAGGCT
2701  GTAGGGCAAT GGTGTGATCT CAGCTCACTG CAATCTCCAC CTCCCAGGTT CAAGGGATTC
2761  TCTTGCCTTA GACTCCCAAG TAGCTGGGAT TACAGGCTCT AAATCTGTAC CCTCCCGAGT
2821  AGCGCTCCTG CCACCACTTG CCCAGCTAAT TTTTGTATTT TTAGTAGAGA TGGGGTTTCA
2881  CTATGTTGGC CAGGCTAGTT TGGAACTCCT GACCTCCAGT GATCCATTCT CATTGGCCTC
2941  CCAAAGTGCT GGGATTACAG GCAGGAGCCG CCAGGGCTGC CACTTTGATG TCAGACTCAG
3001  AGAGTACAGA TGGGATAGGG TGGGGGTGGG AACATGTAGT CAAGGCTGAC TCTACCTGTT
3061  TCAAAGATGC CCTGCAGAAC TGTGTGGGAG TCTCTCACAG ATGGCTGCCT GGGTGGGACC
3121  CCACCAAACT GAAAGACCGA GACTTCAGGC AGGGCAGATG GAGTAGGCCA ACTACAGAGC
3181  CAGAGGTGAC ACTGAGACAC CACTGGGCCT GGAAATCAGG GCATCAAGCC AAAGAGGGTT
```

Figure 8 (Page 1 of 73)

```
3241  TTTCTTAAGA CCTAACAGAA TTTGCCTTGC CAGGTTTTGG ACTTGATTAG GACACATTAC
3301  ACCTTCCTTC TTTCCTATTT CTCCATTTTC TAATGGGAAT GTCTATTATG CCTGTTTCAC
3361  CATTGTACCT TAGAAGCATG TAACATTTCT GGTTTCACAC GTTCAAAGCT GGAAAGGAAT
3421  TTTGTCTCTG GATGAATCAC ACATTGAGCC TCACCCGTAA CCTGATTTAG ATGATTTTTT
3481  AGATGACACT TTGAACTTTA GAATTGATGC TAGAATGAGT TAAGACTTTC AGGGGGCTGT
3541  TGGGATGGAA TAATTTTTTT TTTTTTTTTG AGACGGAGTC TAGCTCTGTC GCCCAGGCTG
3601  GAGTGCAGTG GCACCATCTT GGCTCACTGC AAGCTCTGCC TCCCGGGTTT ATGCCATTCT
3661  CATGTCTCAG CCTCCAGAGT AGCTGGGACT ACAGGCGCCC GCCACCACGC CTGGCTAATT
3721  TTTTTTTTAT TTTAGTAGAG ATGGGGTTTC ACCGTGTTAG CCAGAATGGT CTCGATCTCT
3781  TGACCTTCTG ATCCGCCTGC CTTGGCTTCC CAAAGTGCTG GGATTACACG TGTGAGCCAC
3841  CATGCCCGGC TGGGATGGAA TAAATTTATC TTGTATGGGA GAAGGACATA CATTTTGGCA
3901  GGTCAAGGAC AGAATGTTAT GGACTAAACT GTGTCCCCCA AAATTCATTT ATTAAAACCC
3961  TAAACCCCAG TGTGACTGCA TTTGGACATA GAGCCTTTAG GGGGTACATA AAACTAAAGA
4021  TCACAGGATA GGGCCCTAAT CCCATTGGGG CTGGTGTCCT TACAGAAGAT GAGACACTTA
4081  GAGCTCTCTC TCCACGCAGG CACCAAGGAA ACACCATACA AACACACAGT GAGATGGCAG
4141  CCATCTGTTA GCCAGGAACA GATTCTCACC ATAAACTATG TTGGCACCTT GATCTTAAAC
4201  TTCCAGGCTC CAAAACTGTG AGAAAATGAA TTTCTGTTCC AAGCCTCTTA GATATGGAAA
4261  AAAAGATTCT GTTGTTTAAG CCATCCAGTC TCTGGTATTT TGTTATGGCA GCCTGAGTAG
4321  GCTAAGACAA TGAAGGATGT GGTAAAACTT TACGTCCCAA CCACATACCA AAGAGGCTGG
4381  AATTTAGCAT GCTTTCTTCT TTCAACTGTA GGCAATGTGC ACAAGTTCTA AATCCTAAGA
4441  CATGTTGGCT CCTTTACTCT GCCCAAACTA CAACTCAAAC AAACAACTGT AATATAATAA
4501  CATCCAATGA AGTTCTGACA TTTCTTCAAC ATGAGTACAG TAATTCAATG CCAGAGAATT
4561  CATTTTATTT TGAAATCTAC ATGCCATATT CCAATTTCTG TTGAAGATGC AATGGTTATA
4621  TTTATTCTTT TTAATATAGA TTTATCAGAC TGGGCGCGGT GGCTCATACC TGTAATCCTA
4681  GCATTTGAGA GGCTGAGGTG GGCATATCAC CTGAGGTCAG GAGTTTGAGA CCAGGCTGGC
4741  CAACATGGTG AAACCCTGTC TCTACTATAA ATATAAAAAT TAGCTGGGTG TGGTGGTGCA
4801  TGCCTGTAGT CCCAGTTACT AGGGAGGCTG AGGTAGAATT GCTTGAACCT GGGAGCAGGA
4861  GGTTGCAATG AGTGGAAATC GCACCAGTAC ACTCCAGCCT GGATGACAGA GCAAAATAAT
4921  AAATAAATAC ATAAAATAGA TTTATCAGTT TATCAATAAT ATAGTTTTCT TTTCTAGGTG
4981  TAAATATAGG TAATGACTGT CCTTTAGTAC ATTTTCTCAT GATGCTCCTC TTACTTGGTT
5041  TGGTACAATA TTAAGTATTG AAATAAAATA GAGAATCCTG TCGCTACACA TGAGCACTTA
5101  TTCCATTTGC TCATCTCCAA TATGCACGGG AAATTCTCAA ATTGCTAATA ATCTTGTAAC
5161  ACACATGCAT TATATTCAAC AGGAATATAT AAATTTATAA TTATAATTTA GGATCAACAG
5221  ATGACAAACC TTTAGAAGGT TTGTATTTAA CCTTAAAATA TAATTTTTTA AAAATTGGTT
5281  ATAAAATTTC TAATACTTTC TTTTTTGTGA CCTCAAGGGG AAAATATAAT TCTTATAAAA
5341  GTTCAAATGA TTTACAGAAT ACAAAAAGTG AATAGAGATG ATGAATGAAT TAAAGGAAAG
5401  GATATTGCTA CATAGATTTG GAAATTTAAA AAGGGAAATT ACGATTGTTG ATTTTGTGTT
5461  AAACTGATCT GCTTTGTTCA AGATACCTTA TGTACCAAAA AATGATTTTA TCTCAGCCTC
5521  ATATCTCAGT AAATTCCTGA GACAAACTTT AGTCCCTGGT GCCCAGGTGC CTTTGGTAAT
5581  TGGGAGACCT CTAGGTTTAG CATCCTCATC CACTCGCCCC AATTTAAATA GTCCTCCCCA
5641  GGGCCATTCA GGCAAGGGAG ATGAAAACTT GCTCAAGAGT TGGAATCCAA CTGAAGCTAC
5701  CGAAATTCAT TGCTCAATAG ATAATTTTCC CTGGAAGTAA CTAGGGCTTT TGAATATAAT
5761  AGTGGGCATT TCAAAGTAGA AGGTAAAGTA TTTTGGAGAT GAGGAGACAG GACAGAGCTA
5821  CGAGGAATGT CCTTTGCTTA GGGACTAGGC TCTTAGCAGT ACCTCTTAGG TAAGAACTGG
5881  TTAACTGGCA CCTTCTGTGT TTCTCTGAAG CTCCCTTTGC TTAGGGACTA GGCTCTTAGC
5941  AGTACCTCTT AGGTAAGAAC TGGTTAACTG ACACCTTCTA TGTGTCTGAA GCTCCCAGAA
6001  CAAACTGCCA GTGAAATTTG GATTTTTGGA ATATAGTTTC TTTTTTCTTG TTACTTTTTG
6061  TTTTGTTGTT TTTTTTTGAG AGTCTCACTC TCACTGCAAC CTCCCCCTCC TATATTCAAG
6121  TGATTCTCTT GCCTCAGCCT CCCGAGTAGC TGGGACTACA GGCGTGCACT AGCATGCCCA
6181  GCTAATTTTT GTATTTTTTA GTAGAGATGG GGTTGGTTTT TTTTTGAGAC GGAGTTTCAC
6241  TTTGTCGCCC AGGCTGGAGT GCAGTGGCAC GATCTTGGCT CACTACAACC TCCACCTCCC
6301  GGGGTTCAAG TGATTCTTCT GCCTCAGTCT CCTGAGTAGC TGGGACTACA GGCGCCTACA
6361  GGTGAACACC GCCACACCTG ACTAATTTGT GTAGTTTTAT TAGAGATGGG GTTTCGCCAT
6421  GTTGGCCAGG CTGGTCTCAA ACTCCTGACC TCAGGTGATC TACCCACCTC AGCCTCCCCA
```

Figure 8 (Page 2 of 73)

```
6481  AGTGCTGGGA TTACAGATGT GAGACACCAG ATCAGCCTCA GAAGACATTT TCTATTGGAA
6541  AGAGAAAACA CTATTAGCAA CCTATTAGTC TAATATTTAA TACTTAATGT CTTCCTTAGT
6601  AATAAACCAA CTCTCTACAA CAAAGTGCTT CCTGGCTGCC TAAGTCATTG ATTCATTCAG
6661  TTCAACATTT TCTCAATGCC CAACAGCCAA GTGTCTCTTG TATGCCAAGT TCTATGCTGA
6721  TTATCAGTAT TTGAATAAGA GGGGGTCTAC ATCTTAAGTA CTGCTTAAGA TGAAAGCCTC
6781  TAGGTTAACA AACTTAACAC AATGTATCAT TCACTACTAA ATAGACCGAA TACAAAATCT
6841  TGTTATTGGA GCCCAGAGAG AAGAATTGAA ATTCAAGTTT TCTCTCTCTC CTTTTCTCAC
6901  TCACCACAAT AAGTCAGTTG CACCAAGTCT TGTAGCTCTT TACTGAGCCA TGTTTTCACG
6961  TGTCCCTTTG TTTTATTTGC CACACCCTAA ATAAAAATTG TACTGGCTTT TTTTCCCTGG
7021  GTTTACAGTA TTAATACATT GTCAAGATTT ACCTCTTCGT GTAGATTCCC TGGGGAAAAT
7081  TACCTTTCCT CCTTCCCTTA AATTCTTCAG AGGTTAGAAA GCCATTAGTA ACATTCTGGT
7141  ATGTGGACAA AGTTTACCCA TTATGTATGG ATGTTTTACT CTTTCTATTT TTCTGACAAT
7201  AATCTCTTAA GGAGGTGTGG TTATAGAATA GTCAGCTGTT ATAAGTACTG TTTTCCTGGC
7261  CTTACAACTT AAGTTCTTTA AGCTGTTTCT TAGTTTGCTC ATCTCAAAAT TCGGAATAAG
7321  GATAAAACCT ATCTCTTAGA TTGTTGGATT AAATGAATTA ACATACTGGA AGCTCATGAA
7381  ATGTGCCTGG CACACAGTAG TGCCTAATAA ACCATCTCTC TTATTCAGCC TGTTTTCTGA
7441  TTTCAGAATC TACACTTGCT GAGCCAGGTT CTTTTCATTT CAAGGTGAGC AAAAGCATAC
7501  AAGGAAGAGA TGGAGGTAGG AAGAGATTAA GCCCTAGGCC AAGGTCACAC ACCGATTGGG
7561  AGCTGGAATC AAAGGCAATT TGGTCAGTGA ATAAAAAGGA TTCCAAGGCC CATAAGGCAA
7621  TTCTAACCTT AGGATCGAAA TTCTCGGACA TACAGGAAAT GCTGGGGGGG GAAAATCCGG
7681  TCTTCTCAGC CCAAGAGCCA TGTGAAACCA GACCTTCAAA TCTGATGATT CTCAGCCCAG
7741  CTGCCCATTA GAATCGTTGT AATTTAAAAA TACCCTCGGA AAATTCTAAT ATGTGGCTAT
7801  CAAAGGTGAT CATTTGCTTT TATGCCACTT TGTTTTCACC CAAATGGGAC ATCCAACCCT
7861  TTTCCTTTGA GAGTAGTTGT AGGGAAAGGA GGGGGTGGAG GGAGGGAAGA GCGGAAAAGG
7921  CTGGATCCGC CCTGAGCCGG TGTCAGTATC TGGGAAGTGG GAGGCGCGTC AGCAGTAAAC
7981  AGCTTCTGCT AGGATTATTA TCTCCTGCCA CACACTCGGA TTTGAAGGCT CCAAACGAAA
8041  CAATGCAAAA CGCTTCAGTG GAGTTCCAGA AGCGTTAGAC TAAACGACTG GGTCTGTTTG
8101  GCCAGTCTGA GCAGCTGGGC GCAGATGCAT AGGCAAGACT TAGCCCGCCT AGACTTTTCT
8161  GCCCACTTAA TTCCGATCAA AGCAGAAACC GGCCGGGCGC GGTGGCTCAC GCCTGTAATC
8221  CCAGCACTTT GGTAGGCAGA GGCTGGCGGA TCACCTGAGG TCAGGAGTTC GAGACCAGCC
8281  CGGCTAACCT GGTGAAACTC CGTTTCTACT GGTGGCGGGC GCTTGTAATC CCATCTACTA
8341  GGGAGGCTGA GGCCGGAGAG TCGTCTGAAC CCGGGAGGCG GAGTTTGTAT GCAGTGAGCC
8401  GAGATCGCGC CACTGCATTC CAGCTTGGGC AACAGGAGCA AAACTCCGTT TCAAAAAAGC
8461  AAGCAAACAA ACAAAAAAAT GCAGAAACCG AGATCCGGAA GAAAACCTCG GCGAGATTCA
8521  CAGAATCCAG GAAAATAGGT CTCTAGAAAT TTGTCCATGG TCCCAGATCT CCATTTCTTG
8581  TGGGTGGGGC AGCTGTTACC AGATCCCTAG AAGCAAAGGT TTTTTTGGGG GACCGTGTCT
8641  CACTGTTGCC CAGGCTGGAG GGCAGTGGCA CGATCTCGGC TTACTACAAC CTCCGCCTCC
8701  CAGGCTCAAG CGACTCTCCT GCGTCAGCTT CAAGAGTAGC TGGGATTACA AGGTATGTGC
8761  CACCACGCCC AACTTATTTT TTTATTTATT ATTTTTATTT AGTAGAGAGG TGTTTCACCA
8821  TGTTGGCCAG GTTAGTGTCG AAGTCGTGAC CTCAGGTGAT CAGCCCCCTC GGCCTCCCAA
8881  AGTGGTAGGA TTAGAGGGGT GAGCAGAAAG CAAAGGTTTT TGAGTGGCCA CAGGCCCCAC
8941  TCTATTTCCT TTTCTGCCTG TAATGGCAAC CTAGACGCTT GAGCTTCTTA AAATACAAGA
9001  GTAAGTTGCA TGTCAGGCAC CGTTCTACAT TAGGGACATT AGTCTGTTTT ACAGACACCT
9061  TTCAACTCCC TGGTTAACTT TTAGGTAATA TACTCTGCAC TTTAGCAGGA ATGGGACCTA
9121  TAACTCTCAC AGAATTAGGA AAGTGAGGCT GCCTACAGCC TAAATTGAGA AAAAAATAGA
9181  CGGGGGACTA GTCGGAGGAC CAAACAAGGT TACCAACACG TTAGAGTTTT GCCTTCAATT
9241  TACATTTTTA AAGTAATCAC AACGAAGTGT TTAGATCACG AGGCATCCCT GCATGTAAAC
9301  TGTTAGGCAC TAACTATGGT CGATCTTACA AAGCATTAAC TAGAATATTT CTTTAGAGTA
9361  TGATAGTACG TAACTGACCT ACTATTACAT ACAAACAGAC CAACCTTTAG TAACAGCGCT
9421  CCCCAAAAAC CGAAAAGCAG TAATACGCTT TGCTCAAGGT TGGCATAAAA TTAACTTACC
9481  TTAGTGCCTT TTTTCCTTCT ACCTACAAGC AGTGAGGTTA GCTCTTCCTT TGAAACGGTA
9541  GGGGGGCTCT GAAAAGAGCC TTTGGGTTTG ATAGCGTTTC CGGGAGCTCA GATACCTGTC
9601  AAATCACTTG CCCTTGGCCT TGTGGTGACT CTCGGTCTTC TTAGGCAGAA GCACGGCCTG
9661  GATGTTAGGA AGGACGCCGC CCTGAGCAAT GGTCACCCGG CCTAGCAGTT TGTTGAGCTC
```

Figure 8 (Page 3 of 73)

```
 9721  CTCGTCGTTG CGGATGGCCA GCTGCAAGTG GCGCGGGATG ATGCGAGTCT TCTTGTTGTC
 9781  GCGAGCCGCG TTGCCGGCCA GCTCCAGGAT CTCGGCGGTC AGGTACTCTA ACACCGCCGC
 9841  CAGGTACACC GGCGCGCCTG CCCCAACCCG CTCTGCGTAG TTGCCTTTAC GGAGCAGGCG
 9901  GTGCACTCGG CCCACCGGGA ACTGGAGACC AGCGCGAGAA GAGCGGGATT TCGCTTTGGC
 9961  GCGAGCTTTG CCTCCTTGCT TACCACGTCC AGACATTGCA ATCAGACAAA AATCACCAAA
10021  ACCAGCGGCC TAAGCTCACG AGAAAACAAA CAAAATCAAG AAATATGTAA AACATGGCCG
10081  CTTTTATAGG TAGTTCCTGG GGAGTAAATC CGACTTTTTG ATTGGTCGGT AGCAAATGCT
10141  AGTCAGATAG CCAATAGAAA AGCTGTACTT TCATACCTCA TTTGCATAGC TCTGCCCACG
10201  GATGACAACT GTGCAGTTTG TCTTCCAATT AACTAAGAGG TACTCTCCAT CCCTCATTAG
10261  CATAAAAGCC CTATAAGTAG CAGAAATCCG CTCTTTACTT TCGACACATT TCTGGTGTTT
10321  TAAGATGCCT GAGCCAGCCA AGTCTGCTCC CGCCCCGAAG AAGGGCTCCA AGAAGGCAGT
10381  GACCAAAGCG CAGAAGAAAG ATGGCAAGAA GCGCAAGCGC AGCCGCAAGG AGAGTTACTC
10441  TGTGTACGTG TACAAGGTGC TGAAACAGGT CCATCCCGAC ACTGGCATCT CTTCCAAGGC
10501  CATGGGCATC ATGAATTCTT TCGTTAACGA CATATTTGAG CGCATCGCGG GCGAGGCTTC
10561  CCGCCTGGCG CATTACAACA AGCGCTCGAC CATCACCTCC AGGGAGATCC AGACGGCCGT
10621  GCGCCTGCTG CTTCCCGGAG AGCTGGCCAA GCACGCCGTG TCGGAGGGCA CCAAGGCCGT
10681  CACCAAGTAC ACCAGCTCCA AGTAAACATT CCAAGTAAGC GTCTTAACAC CTAACCCCAA
10741  AGGCTCTTTT AAGAGCCACC CAGATACCCA CTAAAAGAGC TGTGGCCAGA CGCCAAATTT
10801  TATTTGGCGG CGGAGGGGTA TTAGAATATA GGAACTGGAG AGGGGTGGGG ACAAGTGTTG
10861  CAGCTTAGAG AGGGACAAAG GGTCCTGAAC CCGAAAGAAG CCAGCCATTA AAAATGGCTT
10921  TGGGGTCAAT TCGTTGTGCT TAAATTTAAA ATGGAGACAA GCGGCCATTT TGCTAACTCG
10981  GCGTTCCCGG AAGAAACCGC AGGCTCGCTT AGGTTTCAGA CCCAGCTGTC TGTCCCTGTC
11041  TACGTCGCCA GGATCAACGG TTGCCGTAAT GTCATAATTT CGCCACCAGC TTCTAGCCAA
11101  TAGGCTGTCC TGTCATTTTA AATATTAACC AATCGAGGGA AAGCTGTTTT GAGACTCTGA
11161  TTTACATAGC GGACCGGAGT GGGAACCTGG GCAGTAACTG CCTAAGGAAG GACTCCCCCT
11221  CTGTTTTCGT GGCGCACACC TTCGTAGTAT ACTGAAGGGT GTGTCTCCTG GGTTTCCAAC
11281  TGCCCCGGTA ATAGTCTTTT AACCTAATAT GCGTCAGTTT TGATAACAAC ACTAAGGCAG
11341  TACAGAACTA AAGATGTAAG CACTGCGCCA GATGTTGCTT CATACATCTT ATTCTATTCA
11401  ACTGGTTTAT TCAAGATTCA AATCAAATCA AATTTTGCTT GAATCCCAGT GCTCAGTCAG
11461  CCATAAATGG TGTGTTGCCT GATTGAAACT TAAAATCTCC GTAGGGGGCT TGTAACATGC
11521  AGACAAGTTT GAAAGTTGCT TTAGGAGAAG CCAACTCTTA ACTGCTGGGT AAATTGACAA
11581  GCCTTCGAAC ACTGAACTGA AGGCCAGTAA GGACTAGGCG CTGGGTGGGG GAGAATGAAG
11641  AGGAGACGTC ATTAAACTTA GCACATACAC TGTATCTCCT AGAGGACTCT CCCTTCCTAG
11701  ACAACTGCAG GCCGCTTTGT GGCCTGGGAA ATTCCACATT CCCTTAAGTA TTTTACTCAT
11761  GGTCTTTTCC AGGTAAAGAT TTTAAGATGA AGGGTTAGAC GTAGTCTACC TATCTTTTTA
11821  TTCAAGTCTA GAACACGTTT TTAGCACCTA GAAGTTTGCT TTCTCCATTA AAAACCGGGA
11881  ATATACAATA AATAAAATTA GTGTTAAAGC AGATTTTTAC AAACTTAAAT ACCATGTAAT
11941  TTAGGTTACA GTTATTTAAC ATAAGGACTG TGTGATCTTA AATCTGCAAT TTCTTTCACA
12001  CCTGGGAAAT AAACTAAGGC CTGTCTTTGG TGCCAGACAA GGCCTTATAC TTGAACACTG
12061  CTGTGCAATC ACAGGCTGCC TTGCCTAGAT AACTTATCTG AGAAATTCTG ATGAGAAATG
12121  AAATTTCCAG AGTCCCTCAC AAGTAAATTT TTTTTTCTTT TTTTTTTTTT TTTTTGAGAC
12181  GAAGTTTCTC TCTTGTTTCC CAGGCTGGAG TGCAATGGCG CGATCTTGGC TCACAGCAAC
12241  CTCCGCCTCC CGGGTTCAAG CCATTCTCCT GCCTCAGCCT CCGGAGTAGC TGGGATTACA
12301  GGCATGCGCC ACGACACCCT GGCTAATTTT GTATTTTTAG TAGAGACGAG GTTTCTCCAT
12361  GTCGGTCAGG CTGGTCTCGA ACTCCGGACA TCAGGTGATC TGCCCGCCTT GGCCTCCCAA
12421  AGTCCTGGAT TACAGGCTTG AGCCACCGCG CCGGGCCTAA ATGGTTTTTT TTTTTTCTAT
12481  GCCTCTAATG GACCTGGTCA CTTATTCCCA TTCAGACTGA CCGCTCTCCT ACCTGCCAAC
12541  TAACTAATCA GTGTAACCAA AATCTGCAAA CAAAATTCAG TATTCTTTCC CCGCCTTTTC
12601  CCCTTTCTCT TACATAGATT ATGTTTTTGC CTGTGTTAGA TGAAATAATT CTATTGCTTG
12661  TTCTCTCTTC TGTACAAGTA CCCAGTAAGC AAATTATTAA CTTCTTGGTC ATTTATTTCT
12721  GAATTTTCCA CCAAGACAGT GTTTATGTGA GTCATACAAT AAGAACCAAC AGAAATGTGT
12781  GTCTTGGAAA CAGGTTGTCT ATCCCTGGAC CCTTTGAGTT TTCTGTTCAC TTTCCTTTGG
12841  CTTTTGCATG CTAAAAGTTT ATCGTCCGCG TTTGTTTGTT TTGGTTATTC TAATTGGACT
12901  TGGCTGATTG GTTGCATATT GGTGGCAGTA GTAGAATTTG AATTCTGGTT TTCTGGTCAC
```

Figure 8 (Page 4 of 73)

```
12961  ATCATTAAGT GATTAGTCAG TGGAGAGGAC AGGAAATCTG GTTTATTTAT TAACCTTTTT
13021  TTGGGGTGTT TTTGTTTGAA GATGTTGATA TTCTCTGTGA GGACACAGGG TTAGAGTTGG
13081  TGTTTTTCTT TCTGACTTTA CATGGGATTT GATGTTTTGT GCTTGTATGC CTCTTTCCAC
13141  CTTCCAAAAC TTGTCTTTTT TGAGTCCAAA TAGTTGTCGA TATCTGCAAA ACCAGTATTC
13201  CTGTGTTAAG ATGATATGAA TATAAAATGG CTGCCCTGTT ATAACTTTTG ACTTTAAGAA
13261  AGTGTTAGGA CTAACAGGAG ACAAAAAGGA AATCAAGGAA ACCGAATGTC TGGTCTCAAT
13321  AACTGCTATG GCAGAGGCTC TACAGCTTAT TATTAATTTT AGTAATTTCA CATTATTGCC
13381  CCTTCACGTT CTTTAAGTAA GGTTAGAGGA CAGAAGAAAC ATAATGTTGT TACAAATTGG
13441  ACTATTGAGT CAGGGAAAAA AAAGAGTGCT TTCAATATCT GAATAAAACA AAGATTTAAT
13501  ATTTTCTAAA CCTTAACGAG TTTATTGTAA GGGATGTGAT GCTGGAAACT AGGAAACTAG
13561  AATTTTCTTC TAAACTGAGA ATCAGAATTA TTCATATTCT CAGCAGTGGT GCCACCTGAG
13621  GGACTTCTGA TCTTAATTAC ATACTTTTAT TTCTTTAACT GATCAACATG CTAAATAGAT
13681  AACCTATGGC TCTGTTTTTA CCCACTTTAA ATTCTGTTCT ATTAGCACGG TTAGCTTTCC
13741  TAATTGGCAA TAAGATTGAG ACTATCTTTT TTTTTTTTTT GAGACAGAAT TTTGCTCTGT
13801  GGCCCAGGCT GGGGTGCAGT GGCACAATCT CGGCTCACTG CAACCTCTGC CTCCAGGGTT
13861  CTAGCAATTT TCCTGCCTCA GCCTCCCCAG TAGCTGGGAT TACAGGTGCA CCACCACGCC
13921  TGGCTAATTT GTGCATTTTT AGTAGAGATG GGGTTTCGCC ATGTTGGCCA AACTGGTCTC
13981  GAACTCAGGT GATCCACCTC GGCCTCCCAA AGTGATGAGA TTACAGGCGT GAGCCACCGT
14041  GCCCAGAAAA GACTATCTTA TTTTATGAAT TTAAATAATT GTGAAATTAT CCACTTAAGG
14101  GAATTAATAA ATTATAATGT AATCTTAAAT TTTAGTTGGC TTACATAAAG ACTTAAAATA
14161  CATCAATTTA AATAAAAACT CATTTGTCTA AAAAAAAATC AAAAATTTTC CTTGTGCTTT
14221  AAATGTGCTA CCTCTTTAAG TTCTAATTAA GAGAAAAAAA GTTTAACTGT GAGTTTCATT
14281  AGTGGTCTTA GTTAACAGCT TAAAGTATTT TGTAAAAAAA ATACTTCACA ATTTTTAAAT
14341  AACTTAAAAA TATTAATACC TCTTTTATTA GGTTTTTTTA ATAAGGAAAA TATATAATAC
14401  ATCTAATCAA GATTTTTTTT GGACAAATTG GCTTAATAAT TTCATTTTAA AAATGGCTTC
14461  TTTATTCTTA TACTGTAAAA ATAATATTAG CAGAATATTA TAGTATACAC AAGTTTAGGG
14521  TTCATATTCT AAAAAACAAA AACAAAAGCT AATTTAACTT GCATTTACTA AATTTCTTCC
14581  ACTAGTTGTA CTGGTTACAT GAGTTAACAT CACTTTATTT ATTATTCTAA AATTGTAAAT
14641  TATTCATTGA ACCAAATTAA ATGATAATAG ATAATGTCAT TTTTAAAAAT GGAATTAAAT
14701  TTTATGTTAC TAATTATAAG GATTCAATGT GTGAGCTTAA GTACTGAGTT CACAGTGTAT
14761  GATAACTTTA AGAATTTAGG TGAATATTAT TAAATTGAGT AAATTAATTC TCAATCTTTG
14821  GATACCTGGA CAATTTCTAA ATTGGAGGGT ACAAAATACA AATCACAAGA AACAGTGTAG
14881  TTTTATGCAA ATAACATTTT TACACAGTTT AGAATAACCA TTGATAAACA GATAAGAGAA
14941  CATATGATTG CCTTAGAATA GATACTGTTG CTTTCGCCAC TTTAGATTTG TAAATCACGT
15001  ACTGTATACG TGTGGGCGTA GAGGACCATG CAGGTTTTGG ATGACTGCCT CTGTTTTCGT
15061  CATGCCTATG CGGGAACACA ATTGCCTGCT TTGTTTAAGG GCTATGGTTA ATCCAAACAG
15121  CTCTGACTCT ATCAAGTACT ATAGCTACAG AGAAACACAA GTAAGCATTC GAGATAATGA
15181  CTACCTTGAG CCTTTACTTA TTTAAAAAGT TGTTACTGTT TGTTAATGTG GTACATTCAA
15241  TTTACTATGG ATTGTCACTC TAAAATAAGA CTTCAATCTT TTTCTTATTT TTATATAGCC
15301  ATGATTTATA TTCATATCTT AATGTAATAA CCAATCTTCT CTGACAACAT TATAACAATG
15361  CTGGAACCTC CATTTTCAGT ACTTCAAACA ACAAATACTG CTTTTATACT TCAGAGCAGA
15421  TGGATATGTG CTTCCCAGTG TAAACACATT TGGAATCTCA CTGAGAAATA CACTATCACT
15481  AAAAATACAG TTCTGAGATT CATTAAAAGA CCTCCAGAAT TCTGGAAGTA GGAAGTTTCC
15541  TCTTCAAAGT CTACAGAGGA AGATGAGGTC TGAAATAGAC AGCTTCTTCC TTCTTTTACC
15601  TGTGGTATTA TTCTGTTTTG TCCTTTTCTC CATTATCTGT CTTTCCAGTG ATGAAATTTT
15661  GATCTGGCCC TCCCAAGTAT TAAAAAACAA GCAAATAAAC AAATCTCAGT TATATTTTAC
15721  TAAGATATTG GCATGCTAAC TTTTTGCAGG TTTGTAACAA GGACCTTTAT AACTTGACTA
15781  AAAGTTCCTA AATAAGAATA TTTACTAGAA AATTTATTTC TGCCTGTGGC CCACATTTGA
15841  GTCAAAATAA TCAATTAGGA AAAATGAACT TGTTTAACTA AAGTTGACCA AACTGATCTT
15901  TGACCAAACT GATCTTTGAG ACCTATTCAT CTAAGACAAG CCAATTAAAT TCTTGGAGAC
15961  AATTTGTACT TTAAGGAATT CTTATAATAT TTGTAATTAC CCTCATAACT TTTTTTTTTG
16021  CCCTACTTCT GTGCTTCTCT AATATGCAGA TTATTAAATG TTGTTACAAA GCCATTGTCA
16081  AAAAAACAAA AAACAAAAAA CTAAACAAAC TCACATGGTT AGACTTGCTC CTTTATGAGA
16141  TATTTTTACC AAAAATGGAG GAGTTGAAAA ACTCTGGTGC CAGAAATCGT GAAGACATGG
```

Figure 8 (Page 5 of 73)

```
16201  CCTACCTAAC ATGGAAATGT TGGTTGTCAG TGGAAAATAC TACACAGAGA TAGCCATAGT
16261  GCTGCACAGC CAATCTTAAG TGTTTCTAGA GAATCACTAA TTGTTTCTAG AGAATCACTA
16321  ATTGTTTTCT TTTAACATTC TTGGTTTATA CAAGAAGAGA GTATCCATAC TAAACTCTTT
16381  TCTACTGAAA ATAATGTGCA AACATAACAT CCTATTCCTA GACAGTTTGT AGTTTTTTTC
16441  TCCCATTTCT ATTTTATAAA TCATCTTTTT AAAATACTTT GTTGAGTGAA ATCAGTCCAT
16501  TGCTTGATAT ACCTTGAGCA CAAGTAAATA GTATGCCAAA AATTAAATGT CTTTCAGTCA
16561  CAGTTTGACA AACTCAACTA CCCTGAGCCT ATAGAGTGGT AATAATTGCC CTACTCATAA
16621  AGATGGGGTG AAGATTAAAT GAAATAGCAC CTATAGAACA CTAGTTCCAG ACGTGGTATC
16681  ATGCTAGTAA AATGGCTGCA CAGCACTGCT CAATGATGAC AAAAAGTGAA GCTTCTGGAG
16741  ACAGACTCCA AGTTTGACTC CCAGATCACC ACATATAAGA TGTGGGACTC TGAGGCAGGT
16801  CATTTAATCT CTCTGTGCAT TAGTATCCTT CTCTATACCT TTACAGTGAT GGTAATAGCA
16861  CCTACCTTCT AGAAGTATGT GAAGATTAAA GATCCTTAAT GCATATAAAC CACTGTGTTT
16921  ACTGCTGTTT GACAAATTTT ATTTATAACC ATCTTTACGC TCCTAAAAGG ACTTGAAGCA
16981  GCTTATGACT GAAGACTTTG GTAGGAGTTG GCCTTCTATA AATTATAAGA ATTTCATAAA
17041  TTATTTGATA TGAAAATGCC AGTTGATCAT AGTATGTTTA CCGGGGTCCA ACAGGTTGAG
17101  AAAAAATACA CTTTTTTTCC CTGAACATAT GAAATTAGCT CTCTAGGCAT ATTCCTAAGG
17161  ACTTAAAGAA TGATAACTAT CATTTCTCTT AAATCTTCCA GATTTGGAAG GATATATATA
17221  TTCAGCACAT TGACAGACAA TCCCAGTAGT CCTAAATTAA AAGACATTAA AAATTAGTGA
17281  AACTTTTCCT ACCTTTAGCC TGTGTAATCC TGGATGACCA AGCATAAAAT TAAATTGAGT
17341  AGAGTATACC ACTGTAACAT TTCCTGAAAG GTATTCTAGG CTCTGAGTAA TTTCTTTGGG
17401  GTCTGAAGAT CAGTTTGACA TATCCTCAAG TATCATGAGT TCATTATAAT TAAGAAAAAG
17461  AGAGTAAATC TGGAGAATGA GCCACTTTCT TACTACTCCT TGACCTCAGT TCTTTTTTTC
17521  AGAGACAGGG TCTCACTTTG TTGCCCAGGC TGCCAGGCTG GAGTGTAGTG GCGCAATCGC
17581  ATCTCATTGT AACCTCCACC TTCTGGGCTG AAGCCATCCT CCTGCCTCAG CATCCTGAGT
17641  ATCTGGAACC ACAGCAGGTG CACACCACCA TGCCAAGCTA ATTTTTTAAA AAGTTTTTTG
17701  TAGAGATGGG GTCTTACTAT GTTGCCCAGG CTGGTCTCAA ACTCCTGGGC TTAAGTGATC
17761  CTCCTGCCTC AGCCTCCCAA ATTGTTGGGA TTACTAGTGT GAGTCACTGT ACCCCGCCCC
17821  ACTTCAGTTC TGAGGAGGAA AAAATATGTA ATAATAATGG GACTTTGGTT TGCTGATTTA
17881  AAGATTCATG TAACCTTATC ATCCAATGCG CAATTTGTAG AATAATTAAT AGAGACATCT
17941  GGTCTCATGT TTCTACAGTT GCTCATGCCT TGATAGTAGA TCTCCTTGCT GCTGGCTCAG
18001  AAGGGTAAAA GAGCAGAAAT GATGGGGCTT CTCTCATTCT ATGAGGAAAT AGACCTATGT
18061  AGAGGAGGCT ACCTGTGGTA AAACCTTATC CTCATCACTT AAAATTCTAG GCTTATTCTC
18121  TGACCATATC AAGTTTTCAA ATGGTAAAAG AATTGGATTC AAGAGAAATA TGAATAAACT
18181  TTTGTTTTCA CTTTTCTCCC TCCTCTCCCC CCATTCTCCC TTCCTTTATT TTCTTGTCCT
18241  TAGTTTTCTT TTCACTTTTT TGTCTACTAT TATTTGCCCA AACTCAACTG TAGGCTAGAA
18301  CAAAAAAAAA TTGAAAATTA AAATGTGCCC CTTTTGTTGT TAGACTTGCT TAAACAATTG
18361  GGGTAATGAA CCTTGGACAC TAGATTTTAA AACACACACA TTTGAGCTTC AGTGCACTGA
18421  AATAAATATA TTTTTAACAA TTAAAAAATA AAATTGCATG TTTAAAAAAT CTGCAGAGAA
18481  CAATACACGT TGTGAGATCT TGAATGGAAG GAAAACTGCT AGCCTCAAGA GTGGATCAAA
18541  GATGCTCAGC AGGCAACAGA GTAAGAGCAT GTTGGAGGGT TTAGAGAGTG TGCTCAGGGT
18601  TCTAGGCTCT AAAAATCAGA CAGTCCCCAC GGCCTGGCCT TCGTCGCTGT ATCTTCTTTA
18661  TGAAAAACAC TAAGTCTTTT TCCTCACTGG ATAAATTTTT ATCCTTCAAG TTTAGATCAA
18721  ATGGAACTTT AGGACACTGA CTAGGTTACA TTCATCTTTT AAGAGCGTAC AGACATTCAA
18781  GGGCTAGAGG ATGTGGGTTT ACTGCACAGG CTCATTATCC AACAGCTGTG CTACCTGGGA
18841  AACTTAACCT CTCTGTGCCT TAATTTCCTC ATCTATAACG CAGGGAGAAT GACAGTAGGT
18901  ATCTCATAAG GTTGTTGGAA CAACTAAATG CATTGGTATC TATTGTGTAA AGTGCTTAAA
18961  ACACTGCCTG GCACAGAGCA AACATCCAGT GAACTTTAGC CATCATCATT ATCATTGTTC
19021  TCAGAGTCAA ATACAATATC TCATATCTGA TAAATTACAG AAGTGAATCA ATCACTCTCT
19081  CTCTTTTCTC CAGGGGGAGA CAACAGCTTT TAGACATATC TTTTCCAACA GTCGTCACTG
19141  CTGGACACTG TTTCATCTTG CAAATAAACC AATGAAAATG AGTGATCCTA GAAGAAGATA
19201  AATGGAGGTA TTTTGAACAA TCAAAGAAGG ACAAATGAAC ACCTGGCTGA GAAAAATTAG
19261  CTCTTTTTTC TATGCATAAA ACTATTAAAA TATTCTTCAT AGAAATTTAT GACACAGGAA
19321  ACATAAAGAC AAAATTAAAA TAACTCCTAG TATCTCCTAT TCTTTTTATA TGTATATTAT
19381  ATATACTCAT ATTCATATAT ACATATATCT CACATCATGT ATCATATATA AAATAAATTT
```

Figure 8 (Page 6 of 73)

```
19441  AGGTGTCATG ATATATATTT AGATAAATAT ACTTAGAAAC TTTTTTATGG ATGTATAATT
19501  TATGGATATA TTGATAATTA TGTATTTGTT ATTGACTACT TCAATTGATT CCCATTTTTA
19561  TGCATTATAT TATAGATTAT ATAGCTCACA CATCTTTGTA CATAAATCTT TGTTCAAATA
19621  TTATTTCCTA AGGATAGACT TCATGAAGTG GAAATACTAA ATCAAAAGTG AAAAACATTT
19681  TCTAAGGTTC TTAACATATA CATTGCCAAA TTGCTATTCA GGATCATACC AATTTATAAT
19741  CCCAAAATAA TATGGAAATT CCTGTTTTAT AGCACTCATA TTTACAATAA ATTTTAAAAA
19801  TCACTGTTAA CCTAATAGTC CTTCAAAAGA AAAAAAAATT GAAATTACAT TATTTTAATG
19861  ACTCTATTAG TGAGGGTCAT TCTTCCCATG TTTCTTGTTA GCCATGACCC TATAAGAAAT
19921  AAACTGCACT GCAAAATGAT AAACATGACA TCAATCATTA CATGGGAAGG CACTATATAA
19981  AGAATAATAC CTTAGGTTAA GGCCACATAA ATATTTATCA GGTGCCTTTT CTGCGGAGGA
20041  CTCTGAAGGG ATACTAAACT GCATTTAGCT GCATGCAACT GAAACTACTT TTACCTACAT
20101  TGTCTCTTAT AAACATTATA ACTACTCTTT GAGAAAGTGT TTACTATGGA CTGAATTGTC
20161  TCCCCATCCC CCCAAATTCA TATATTGAAG CCATAAACCC CAATATGACT CTATTCCTAG
20221  ACAGGACTTA TAAGAGGTAA TTAAGGTTAA ATGAGGTCAT TAGGATGGGT TCCTAACTGG
20281  ATAGGATTGG TGGCCTTATA AGAAGAGGAA GATTCTGCAC TTGGTCTTCC AAATTAAATA
20341  ATTTATTTAA AAGAAAAAAA AAAAAGAGGA AGAGAGGGAG CTCTGCACAT ATACTGAGGA
20401  AAGGCTATGT GAGCTCTCAC AGTGAGAAGG TAGCACTCTA CAAGCCAGCA AGAGAGCCCT
20461  CAACAGAATC CAGCCATGCT ATACCCTGCT CTGAGACTTC CAGCCTCCAG AACTGTGATA
20521  AAATTTTGTT GTTTAAACCA CACAATCTAT GGTATTTTTT TATGGCAGCC CAAGCCAACA
20581  AAGACAGCAT CATTGCTGTC ACTTACAGAC AAGAAAACTA AGACTAGGAG AGAGAAAAGT
20641  TAAACTTGTC CAAGGTCACA AAAGCCAGAA ACAAGTGAGG TGAGAAGTTG ACCTTGTTCT
20701  CCTCAATCCA AGGCCAGGAC TCCTCCACTC CACATGTAGA TAGCCACCTC ACAGTCAACA
20761  GCCAAATGTC CACACCCCAG AGTCAGCATT AGACCAAGAT GTCTTACCAG GAGACAAATG
20821  CCTCATCTTG AATAAATATG ATCTAACAAC TTACCCATGT AAAACATTGA ATCTCATGAG
20881  AAACAAAAAT GCAAAGTATG TAGAAAACTA TGTTTACCAC TTAACTGACA GTGATAAAAA
20941  GCTTAATGAT ATCCTTATAG TCTTGGAGGG GTTTGTATAT GTGGTGAAAC AGGTGCTCAC
21001  GCACTGCTGA TAGACTGTAA ATTGGTCCTA GAGAGAAAAA TAAATAAACT GGAAGGAGAT
21061  ATGCTGTATG TTTACTTTTT TTATGGAAAC ATATGATATA CCTGGAAATT CGATTGACCA
21121  TGCATCTATT TCTTCAATGG GTATGCACAG TTGAGCTGTT CCCATGCACC AGGCACTGTA
21181  ATGGGACAAC TGCACATGAC AGTCAAAAAT CTCAGTCTCA TGAAGTCGAC ATGCTCATGG
21241  AGAGGTGCTA CCCACTAAAC TAATATTTGT ATATCAATTA TGGATACATT GGGCCACATT
21301  TACAGAAATT CACTTACAGT GGGTTACCAG AAGGGATTTT TTTTCTTGAT TGGCAAGAAG
21361  GCTAGGCTGT TTTGTTGGGG GCTGGCAGGA GCTGTCTAGG CTGCCCAAGT ATGCAGGTCT
21421  CTTCTATCAT CCTGTGTTAA CCATCTTCCA TGTATCTTTC AACCTCATGG TCATCTGCAG
21481  CATGTCTAGG GGTCATATCT ATGTTCCATG CAGGAAAAAA GGGTAAAGGG AAAGGGAAGT
21541  AGGCATGTAC CATTTTAATG CACACCTTGG TTTTCAGAAA ATTTAAGAAG AAAGACTTTC
21601  TGCTTTTCTC TGACTATTCT GTATTCTGGA TTACAACGCA ACAGAAACGT CACCTTAAAT
21661  TCTAATGTTT TTCTCTCCTT GCTTTCAAAA ACTGACTCAT TAACCTCCAC GTGGCTTGGA
21721  AAAATTATTT CAGTCATCCA GTAATGAGCT GTTCATAGAA ATGTTTTGGA CATCAAGTCT
21781  GTGTTGTTAG CATTATACAT GTTAAGCATT GAATAAAAAA CAACATGATG TGGGTAAATT
21841  TCTTTACTTA CATATAAGTA CTTATATACT TATAGCTGAA AAGAGAGGTT GAAATGTCAG
21901  GTGGAACAGA AATAAGATTA CCTAGATGTT TCTCCTATGG GTGATTTTCA GCTATGCTGA
21961  TCTTTCTTCT GGGTCAGGTA CTCCCAGAAC TTCCTAATTA AATGGTGGCC CTGATCTTAG
22021  TTCCTCTCTC CTCTTAGACA TTTTCCAGGA CTACAGAAGA TGTGCAGTTT ATAAATGAGT
22081  AGCAGAAACC TACTGAACAA ATTATTCAGG CTCATCTGAA CAGAGAGGAC ACCTTCTCTG
22141  CTATACTCTC TCAGTGATTT CCCTGCCTTG GGGTCAATTA TTGTCTTGGA CATTGATTTA
22201  AGCACATAAT AATTGTTGTC ATTGCTTATG TTTGGATTTC ATCTCCCAAA ATAGATGGTA
22261  AATTCTTTAG TTTAGAGACC AAGTAATACT TAAAAAAAAA TTTTGTGTGT GTGTGTGTGT
22321  TTTTTCTGTG TCTCTCAGCC CTGTAATAGC ATCGTACTTA CACTTGTTAG ATTTTTAGAG
22381  ACAACTTTTA CAAAACATGG AATTATCTAC ATACCCTTTC TACAAAACAG ACAAATTAAA
22441  TACTCAGTAG TTGAACCAAA AAAAGCAGTT CAAATAAAAT ACTTGAAAAT GAAGAAATCA
22501  TTTGAACAGA GTTAAAGTTA ATCGTAAAAT AATGTCTGTA AAAATTATTG CCAATCAAAT
22561  ATAAAGTTCA AAAATAGTGC TTGAAAAAGG AAGAATCATA TGAAAAGGGA CTACTCATTT
22621  TAAAAATGTT AGATATCAGG AAAAGCCAAG AAGTGAGTAT GGTAAGAGTG CTGTCAAGTG
```

Figure 8 (Page 7 of 73)

```
22681  AAACCCTGCT AATCTCACTG AACATGTAAA AATCTGTAGA TGCCTTTATT TTATTCACTC
22741  ACACACATAT GTAGAAAGAG AAATATATGG TAAACATTAA AAAAACCAAA TTAGAATGTA
22801  AAATTAATAC TTTAAAAAAT GGGCTGTATA CTTTTCTTAT CACCGGAGAT AAGAATTTAT
22861  TATTTTTAAA ATAAAGTTAT TTTCTCTGTG ACTGTTTCCA TGACTTTGCT ACTTAGAAGT
22921  TAGAGATGCC AAAGTTTATC TAAGAAAATG TTTATGGAAA TATTATTTCA ATAATGAATG
22981  TTTAGAAGAC TGAATTTCCT GACTGGGCGC AGTGGCTCAT GCCTGTAATC CCAGCACTTT
23041  GAGAGGCTGA AGAAGGAGGA TCGCTTGAGT CCGGGAGTTC AAGAGCATCC TGGGCAACAC
23101  AGCGAGACCC TGCAGCAAAG TAAAAAGAAA AAAGAATTGA AAAAGGAAGA CTGAATTTCC
23161  TTTGGGCAAG TCATGTGACA TTCCTGTGCC TCAGTTTCTT CATCTATAAA GTTAATTCCT
23221  ACATTTTTGG GGAAGGGAGA GAAAAACTTA GGATAGTGAC TGGCACAGAA GAAGCACTAT
23281  ATACTATATA TATGTGGATA TCATTTGTTT TTATGGTACC ATTTTAGCTA TCTAATGCAA
23341  AATATGAATC TTTTTTTTCT GGGTCTTAAA TTATGGAATG TAAGAATTTT CTAAATTCTC
23401  TAATTCTGTG TTAGTTTTAA AGCAATGGAG TAACGTATCT GTCAACTTGT AAATATAAGG
23461  ATCAACCTGA TCCACAATTT GACCCCTAGC CACTAATATT TAATAGTACA ACACTCAGAA
23521  ATTATCAAAG GTCAGAGAAG CCAAACAAAT GTAAAAACAT ACAGGTGCTC AGAAAGATGC
23581  ACCTGTAATC TCTCTAAGGA GAAATATTTT CCAAACTGAG TGACACGGTG CTTTAGTGAG
23641  TTGTGGAATC AATCTCATGA TTTCCAACCT AGTGTTCTTT TAAAAATGAA CTAGTCCACA
23701  GTAGAATATA CTAAAGTGCT GGTGCTTAAG ATAGTATTGT TTTCTGGAAA AAAAAAAAAA
23761  ATTTTTTTTT TTTGAGACAG GGTCTCGCTC TTGCCCAGGC TGAAGTGCAG TGGCACAATC
23821  ATGCTCACTG CAGCCTTGAC CTCCTGGGCC CAAGTGATTC TCCCACCTCA GCCTTTTGAG
23881  TAACTGGGAC CACAGGTACG TGCCACCACA CCCGGGTAAT TTTTTAATTG TAGAGACAGG
23941  GTCTTGCTAT GTGCTTAGGC TGGCCTTGTG AACTCCTGGG CTCTAGTGAT CCACTAGCCT
24001  CAGCCTCCCA AATTTATGGG ATTATAGGCA TGAGCCACCC TACCTGGCCT GTTCCCTGAA
24061  TTTTTTTTTC TTTCAGGTGT TTGTGCATAT GTGTGTGTGT ATGGGTATAA CAGAGAGACA
24121  GAGAGAAAGA AACTTTTCTA TCTCACTTTG CAATCAGAAG TTTGAAGTCT TATCTTTTGG
24181  CTTTTGTTTC AGAAATATTT CAAATGTAGA CTCTCTCCTT TACCACACTG TCCCCTTAGG
24241  CAAGGTCTTT GCCATTCTTC TGAGACTATT GCAACAGACT CCCAACTTCT GACTGTGGGC
24301  CCTTCTCAAA AATGATTGTT TATGCAATAA ATCTAAACCC AAGACAACTA CAACAATACA
24361  ACAAATTCTC TGCTTAAAAA CTTCCAATGT CTGCCGGGCG CGGCGGCTCA CGCATGTATT
24421  CCCAGCACTT TGGAGGCAGA GGCGGGCAGA TCACTTGAGG TGGGGAGTTC GAGACTAGCC
24481  TGGCCAACAT GATGAAACCC CATCTCTACT AAAAATACAA AAAATTAGCC AGGCATGGTG
24541  GTGGGCGCCT ATAATCCCAG CTAATTGGGA GGCTGAGGCA GGAGAATTGC CTGAACCTGG
24601  GAGGTGGAGG TTGCACTGAG CCAAGATCAC ACCATTGCAC TCCAGCCTGG GCAACAAGAG
24661  CAAAACTCTG TCTCAAACCA AACCAAAACA AAACTTCTAA TATCTACCAA ATGTTTCACA
24721  CAAGTATTTG GGGATCTTCA CAAATGGCCC TTATGGAGTT TTCCTTTGCT GAGACCCTAT
24781  GCTCTGGCCA CACTAAACTC ATTCAGCATC CCAGAAAGGC CTCAGCCTTT GTGAGCAAGC
24841  TCTTATCTCC AGGCCTCTCA CAAAGACCTG TTCCAGTAGA AGCTCAGGGG AGCACACTGG
24901  ACATTATTCC AACAACCCTT TCCCCACAGC TATGCAGCCA AATCTGCCAG CTCAGTTAAT
24961  TAATTAAGCA ATTCAGAGAT GAGGGTCTGC CCAGGCTGGA GTGCAGTAGC TGCGACCTCA
25021  AGCTCCTGGG CTCTAAGTGA TCCTCTTCAG TCTACCCAGA AGCTGGGACT GCAGGCATGT
25081  GCCACCACAC CCAGCTAATT TTTTTTTTTT TCAGTAGGGA CCAGGCCAAC CTAGTCTTGA
25141  ACTCCTGGCC TCCAGCCTTC CGAAGTGCTG TAATTACAGG CATGAATCAC TGCGCCCAGC
25201  CAACCCGCCC AGTCTTGTTA GACATGGGGT CTGTAGTTTC TAGTAGGTTC TTGAGTCTAG
25261  GGTTCCTACC TCATGTTTTA TAGTTAATTT AGGGGAGGGA CTGTGTCTGT TTATCTGGGG
25321  ATGTAGGGGT GGGCAGGGGG ATAGAGGGGA CTTCAATTAA TGAAACCAGA AGCAAAACTC
25381  AGTTGAGGAC ACCGGTCATG AGAGTGGCCT GATTATGGCC AATCTTACAT AATGTGTGAG
25441  ATCTTGATAT TACCCCATCC TTGAGAGTCC TCTATAAAGC TACAGGGACT TGGGAGCACC
25501  TTTAATTACA GACAACCCAT GTTCCTGTGG ATTATGATTT ATTAGATTGC ACATGCCTAA
25561  ATAAAGACAT CCTCTGCAGT CTTTTGACAA TTCTATAAGC ATCTTCTGAC TCCGCAATTA
25621  GACAGCTAAG AGATCTGTGT TACTTCCCTC ACATATATAA ATAATTTTAA ATAAAAATCA
25681  TGGCGTGAAT AATTTCTTTC CTCTACCGAT TTGAAGCTAT CCATTTGGAA GACCACTCTG
25741  AAGAGATGAA ATAAGTCTTC TGCCAAAGAT TACTTATTAA TTTACAAGGA AAAGGGGAAG
25801  TTTTGTTCCT CTCCGTGAAT TTGATTGAAA ATCGAGGGCT TTCTCGAATA GTTTTGGCAT
25861  CCAGGGTCAT TTTTCATTAA AAAGAGAAAA GTCATGTCAA ATATGAATTT CCGCAGATTA
```

Figure 8 (Page 8 of 73)

```
25921   TTCAGCACTA GACCCTGGGA GATTCTGTAA AGAGGGGTTT TGTTATACTC AACTTTTCCG
25981   GGTAAAACAA ACACAAATAC TCCTCCTCCA AGGGGCGGGG GCGGTGCCTA GGTGATGCAC
26041   CAATCACAGC GCGCCCTACC CTATATAAGG CCCCGAGGCC GCCCGGGTGT TTCATGCTTT
26101   TCGCTGGTTA TTACATCTTG CGTTTCTCTG TTGTTATGTC TGAAACCGTG CCTGCAGCTT
26161   CTGCCAGTGC TGGTGTAGCC GCTATGGAGA AACTTCCAAC CAAGAAGCGA GGGAGGAAGC
26221   CGGCTGGCTT GATAAGTGCA AGTCGCAAAG TGCCGAACCT CTCTGTGTCC AAGTTGATCA
26281   CCGAGGCCCT TTCAGTGTCA CAGGAACGAG TAGGTATGTC TTTGGTTGCG CTCAAGAAGG
26341   CATTGGCCGC TGCTGGCTAC GACGTAGAGA AGAATAACAG CCGCATCAAA CTGTCCCTCA
26401   AGAGCTTAGT GAACAAGGGA ATCCTGGTGC AAACCAGGGG TACTGGTGCT TCCGGTTCCT
26461   TTAAGCTTAG TAAGAAGGTG ATTCCTAAAT CTACCAGAAG CAAGGCTAAA AAGTCAGTTT
26521   CTGCCAAGAC CAAGAAGCTG GTTTTATCCA GGGACTCCAA GTCACCAAAG ACTGCTAAAA
26581   CCAATAAGAG AGCCAAGAAG CCGAGAGCGA CAACTCCTAA AACTGTTAGG AGCGGGAGAA
26641   AGGCTAAAGG AGCCAAGGGT AAGCAACAGC AGAAGAGCCC AGTGAAGGCA AGGGCTTCGA
26701   AGTCAAAATT GACCCAACAT CATGAAGTTA ATGTTAGAAA GGCCACATCT AAGAAGTAAA
26761   GAGCTTTCCG GGAGGCCAAT TTGGAAAGAA CCCAAAGGCT CTTTTAAGAG CCACCCACAT
26821   TATTTTAAGA TGGCGTAACA CTGGAAACAA GTTTCTGTGA CAGTTATCTA TAGGTTTAAG
26881   TTGTGATGCA GCTGAGTTGA AAAGGCTTGA GATTGGAGAA TTAATTCAGG CCAGGCTTCA
26941   AGACCATCCT GGGCAACATA GCCAGACTAC CATCTATACC AGGGGTCCTC ATTTCCCCGG
27001   CCACCGACCG GTAACCGGTC CCTGTCCATG GCACGTTATG AATTGAGCCG CACAGCTGAG
27061   GGGTGAGCGA ACATTAACCA ACTGAGCTCC ACCGCCTGTC AGGTTAGCTG CAGCATTAGA
27121   TAGATTCTCA TAAGCTCAAA CTGTATTGTG AATGGCACAT GCAAGGGATC TAGGTTTCAG
27181   GCTCCTTGTG ACAATCTAAT GCCTGATGAT CTGAGGTTGG AGCAGTTTTA GTCCGGAAAT
27241   CATTGCTCCC AGCCCCTGCA CCCCCTGGTC CGTGGTATAA TTGTCTTACA CAAAACGGTC
27301   TCTTGTGTCA AAAAGGTTGG AGACTACTGG TTTTACAAAA AAGTAAATTA GTCAAGCATG
27361   GTTGGCACGC TCCCTTAGTC CCTGCACCCA GGCGTTTAAG GATACAGTGA GCTATGATGG
27421   TGCTACCTCA CTCCAGCCTG GGTGACAGCG AGTCAGACGT TGTCTCAAAA CTTAAAAAAA
27481   AAAAAAGTTA AAACAGAAAA AGGGCTTCTT GTCAGAGACT GCCGTATATC TAGAGGTCCA
27541   GGAACTAAAA AGTCTGATGT CCAATCCTGA AAAGCTCGAT GGTGCACTAG AGGAGGCTTT
27601   TACATGTAAG AGCATCTAAG TTCTGGAAAT GCCAGTGTCA GGGAAGGGAA GTGGAGAGCA
27661   ATTTGGCATC CAAACATAAC TTGCTGATAC TTTTTTTTTT TTTAACACAA GTACTACATT
27721   CTAGTCTTTC TGTGGTGTCA TTGTAACTAT TGTTTCTTAA TATGCTATCC ACTGACTTCA
27781   AGGGATCAAT AAATAGGAAT CAAGGTGTCC CAGAATATGG ATTAGGGGAG TTTTTTTGTT
27841   GTTGTTGTTG TTGTTGTTTT TCATCTATTC ATTATCCTGT AGCTGAAATT TAGAATTTTC
27901   TTCCATTGTG TGTGACTGAT AGAAATAACA AATTTGTAGG TTATAGTTGT TGCAAGAATC
27961   TGGAAATCGT GCTTGCTTAT TTCCGAAGTA CTATTAGGTA TATCAACAAA AACACACATA
28021   TTACGGTCAA GTGGTTTGAT AATTATTTTA ATATTATTGG TCTAATACAA TTGTAACCCT
28081   ATGAATTACT TTAAGTATCT TATTTATGAA AAGAATCTGT AAGTTTCATC AGACTACCAG
28141   AGCATACCGA AGACTGAAAA ATTTTAAGAA TCCAAACCTT AATGGAAATG TTGGAGGCTG
28201   CCCAATTAGG TTCTGAATTC CACCTTCCTG AATCACAAAC TTGTTTTAAC TCTCAGTCTG
28261   AGGTAAACTA CGTTTCTCTT TAAACAGACA TAGTTTAATT TTCCTTTGAT TTTTGATTTA
28321   GTATTCTTAC TGATCATCAT AAATAACCAA TGCTAATGTT AGTCTACTTT GGACCATGGT
28381   ATTTCGAGAA ACTTTGAACA AAGTCCCCTG CAAAACTATG CATTGCATTA TTTCACATAC
28441   ATTTATGTTT TCCAGACGGT TCAATAGTAC CTCACTTTTC TGAACTTATT TGTATAGTTT
28501   GGCATCTTTT TAAAAATTGT GTCCTATAAT GAAAGGTTGT AAACATTATG TTTTAAATTT
28561   GTATAGATAA AATCAACCAC AGACCTTTCC TTGCTTGGAT GTAATTGCCA TTGTTTCCCA
28621   ATGAGTTCGG AATTACTAGG ATTGTGCAAA AATATGCCTC ACTTGCCTGA CATAGCAGAG
28681   AGCCATTTTG CCTAAATGCT GTGCCCAGCA ATGGACTGTC ACCAGATTCT CATCACATAC
28741   AGTGAGGATG AACAACTAGC CTCTCCCAGC AGCTGGCCGG TCTCTCAATA ATATGGGACT
28801   CCCTCAAGAT GGCTTCCTGC ACCTTTGCTC CTCTAGCCTT GTATGTATAC AAGGCTAGCA
28861   TGCCTGGCAT ACATAAGGTT AAAAACAAAA TCAATAAGTT ATGGTTCTTC CTCCAGTTCT
28921   GGGGATTATT AGACCACTTT TTTGTTTTGT TTTGTTTTGG ATGGAGCCTC GCTCTGTCAC
28981   CCAGGCTAGA GTGCAGTGGC ACAATCTCGG TTCACTGCAA CCTCTGCCTC CTGGGTTCAA
29041   GCAGTTCTCT GGCTCAGCCT CCCACGTAGC TGGGATTACA GGTGCCCGCC ACCACGCCCG
29101   GCTAATTTTT GTATTTTTAG TAGACGGGGT TTCACCATCT TGGCCAGGCT GGTCTTGAAC
```

Figure 8 (Page 9 of 73)

```
29161  GCCAGACCTC GTGATCCACC CACCTTGGCC TACCAAACTG CTGGGAATAC AGGCGTGAGC
29221  CACCGCGCCC GGACTTAGAC CACTTTGTTT TGGCCAATAG GACAACAGCC ATAGAACCCT
29281  CCGCAAATGA GAGCTTGTCC CTAAAGATGC TTTATTTACA TAGCTGTGTG CCGCATGAGC
29341  CAAAAGGTGA TAACCTTTGT TCAACACGCG CCTCCAGCCC TTCGGTTAAG TCCAAAGTAC
29401  CATTCTTAGA ATGCTCTAAA ATACATAATT TTTTTTTTTT TTTTTTTTTT TTTTTTTGAG
29461  GAGTCTCTCT CTGTCTCCCA GGCTGGAGGG GAGTGGCGCG ATCTCGGCTC ACTGCAATCT
29521  CTGCTTCCGG GCTAGCTGGG CCTACAGGTG CAGACCACCA CGCCCGGCTA AGTTTTGTAT
29581  TTTTTTTGGT AGAGGGGGTT TCACCATTTT GGCCAGGCTG GTCTCGGATT CTTGATCTCA
29641  AGTGATACAC TAGCTTTGGC CTCCCAAAGT GCTGGGATTA CAGTCGTGAG CCACTGCGCC
29701  CAGCAAAATG CTTTTTGTGG AGCCAATCAC TTTATTAGCG CTTACCTCTC TATGCCTACT
29761  TTATGCTTTG AAATTTTGTC ACAGTGTGGC CGGTCATGGC AAACACAATT CATTCTTATG
29821  CAGGATGTCA CGGTTATTTC TGTCATCCAA ACTCATTCTC GCAACGCATT TCAGCTCTTT
29881  AAACGACTTT GTGAGCGGCC CTGAAAAGGG CCTTTGGGTT TTTTTGTTTT TGTTTTTTGA
29941  AGTTCTCAGG AGACCGCGTA TTCTTAGATT CAGCCGCCGA AGCCATACAG AGTGCGCCCC
30001  TGACGTTTTA GGGCATATAC TACATCCATG GCTGTGACAG TTTTGCGCTT GGCGTGCTCC
30061  GTATAGGTGA CGGCGTCTCG AATAACGTTC TCTAAGAAAA CCTTAAGCAC ACCTCGAGTC
30121  TCCTCATAGA TAAGACCGGA AATGCGCTTG ACGCCACCGC GCCGAGCCAA ACGGCGAATA
30181  GCCGGTTTTG TAATGCCCTG GATGTTATCC CGGAGCACCT TACGATGGCG CTTAGCACCA
30241  CCCTTCCCCA AGCCTTTTCC GCCTTTGCCG CGACCAGACA TGATTCCTAT CGCAGTGGAA
30301  GGTATGAACT GAAACAGTTC CTTAAATACA AACTTGGCGG ACCTGATTGA AAACAACATG
30361  AGTTGGCGCG GTTTTTTTTT TTTTTCAAAT TTGGTCACCA AGTGGGTGGA GCAAGAAAAA
30421  CTGTTTCATT ATGGTTCATT GTTTTGATTG GCCAGTGACA GCTTGCTCTT TGTGGGAGTG
30481  GAAGGGTGTT TGCAAGTTGA ATGCGCTGTA TTCCTGTCAG CTTAATGACG CTAAGCATAG
30541  CCCCATTCCA CATTTCTTTT TATTTCCACT TGCTAACTAA TAAATTACGG AATAGTTTAT
30601  TGGGGAACAT ACAAATAATG TTTAAAGGAG GTCAGATTTA TAGGTCAAGG GATTTACCCT
30661  CCCAATCATT TTAATATTTT TATTTAAACC AGGCATTTTG ATGGCCTTCT CTGTGCTGGA
30721  CAAGGTATAA GTTTGGCTAT GAAGTTTCAC TCCTAAAGAC CCTATGTTTT GGGAAGGCAA
30781  AAAGGTAGCC AAATAATTGC AAATTAAAAC CTCATAAGTG CAAACTTCTT CCTCGTCACT
30841  TTCCCTATCT CGATTCAAAT ATTTGTTGAA TGACTCATTT TTCTGCAAAA GTCTGAGAGA
30901  GACAGGGAAT ATAAACTTAA GTCTGGATAA TATGTTTTCC CGGGACGCTC TTCCTGGTCT
30961  GCTGTGCCTG TTTGCTGTGC CTGAAATTCC AAACACTCTT CCCTTCCCTC CGTTTTTAAT
31021  CCCCTTTCAA CTTGCTACAG CTTTAGAGAA AAGAACATTC GTTTTGTACA GTTGGGGATT
31081  AATTGAAGTG TAGGGCTAAT ACTTGATTAA GGTCATTACA AAATCTACAG GGTCTTCCTC
31141  TGGGAGGTTT TTGTGATAAG ATTATTGGTG TTAAAATAAG GCTAATCCCC TTGAAAAATA
31201  AATAGAATAG CAGAATTGGG TCTGAATGTG GTTTGAAGAA AGGGACTTCT CAATTCAAAA
31261  TTTTATTCTT AGCTTCCTGC GGGAGCTTTC CAGAATGCCC ATAAGATCCA CTTTTGTTTA
31321  AAAAACAAAA ACAACCCCAC CCACCACTCT CTGGTTAATA AATGAATTTC TATTGGGAAT
31381  ATTTAGAATG GGGCTGTGGC CTGTGAGAGA CATTATATAG TAACCTCAGA CTTGCTCACA
31441  TGAAGAGAAG AAATCCAGGA ATGGAGAAAA AAGACCCAGG AAAGGCCAGA ATGCTCTACA
31501  TGTCATATTG TTTGTATCAC TTCTGAAATA ATTGATTACA TTCTTCTGCC CCAAATTGAG
31561  TTCTTAGGTT CTTCCACTCA CTGTCCACAT GCCACAACAC AGACCTTATA ACTAGAGACT
31621  TAGCTAGGAA GAAATGTCAA ACATTACAGA GAAAAAATGC AGAGTCTGAG ATCATAAGTA
31681  AAACTCTGAA ATCTCAACAT GCCTTTTAAT TCATGAAAAT AAAAAATATA GCAGCATATG
31741  CAATATGACA ATTCTCTGAA AACATACATC ATGTGAACTA CCCTGGAACA CATCTCGCCA
31801  AGTGCCATCT TCATTTTAAC CAGAGGTCTA GGATGCCTTT CCTTTATTTT GCCTATTATA
31861  TCATTTATAA AACCCCATTT TTATTTTGAT ATTTTATTTA CTTTCTATTT CCTGCTCCTA
31921  ATATCTCCTT TCTAAACTTT TCTCAATGAC AGTGACTCAA AAACAATGAA TGTCAGAACA
31981  AATATTTAAA GGATCTGTAC ATGTAGATAT ATATATTTAA AATGGATTCT TCCACTCTGC
32041  GAAGAATTCA GGCATACTCA ATCTTATGGT TAGGGAGAGA TTAGGCTCAC TCGCCTAATC
32101  TGTATGGCTT CTCGTTCGCT TTCCATTTCA CCTTCCTCTC ACCCATCAGA TCAAACTCAT
32161  TCATTGAACA AGAGACCTAA GCCCTTCAGA TTAAAACTCT GCAAACAAGT TGTGGTTGAG
32221  AGGATACATG AAGCATTCAA ACAAATAAAT CTATGATATT AATCAGAGGT TAATCTATGA
32281  TATTAATCAG AGGTTAATGC AGTGGCTCAC GGCTGTAATC CCAGCACTTC AGGAGGCTGA
32341  GTTGGGAGAA TCGCTTGAGC TCAGGAGTTC AAGACCATTT TGGGCAACAT AGCAAGTCTT
```

Figure 8 (Page 10 of 73)

```
32401  CATCTCTACT TAAAAAAAAA TAACCAGAGG TGTTATGAAA ATATAAATTG TCCAGAACTA
32461  CCCTCCACAA ACTAACTCTC TCAGAATATT CGATATGAGG AATGAAATAT GGTGTGTGTG
32521  TGTGTGTGTG TGTGTGTATG TGTGTGTGTG TGTGTGTGTA TGCACCTATA TATGGCACCT
32581  ATATATTCAA CAAACAATTC TGATAATTGG CCAGGGTTGA GAATGACTAG CAGCCCAGCA
32641  TACACTATCA GTTTTAAGTA TATAATTGCG CTTTAGTAAA ATGTAAAGAA ATCCCAGAGT
32701  AGAAATACTT TTAAGCTATA TTACAGGTGA GAAAATGCAT AAGTATAGTC TCACCCAACT
32761  TAGACTATGG GGGCTTTATA ATGTCACAAC AGTTGTTTCC AGGCATTTGG GGACATCACC
32821  ACTGGTCTTG GGCAAGAAAC TCCTCTAGCC AATGGCTGAT TTATCTCACT CCCATCTAAG
32881  GCTTCACTGC ATTTCTCTTT TTCAGCAACC TAACTTATTT AAAAATATCC ATTTTCTGAT
32941  TCATTTTTTT CTGAATTAAA CTGTCAGTAC CATTGGCACA CCTTTGGTTC CGTAGCATAC
33001  CTGTGTCTCT GCTGTGTTTT TTTTTTACCT CCACTCCTTA CTTTTCTAGA AAAAAATCTC
33061  TGCTTTTTCT TTTCAGTTTA AATTATTTCA CAAAAAGTTT TCTTGACTTG CACTTCCTAG
33121  GCTTGCTGTC CTTGTGTGGG CACGCTCCCA TAAACACTAT TAATACACTT CGATTTGTTA
33181  AAAATAAAGA TATCTGGACA GAAAATTTCT TTTCTTTTTT TAAGATTTTA AAATTTTTAA
33241  TGTTTATTTT TTTCCTAGAC TGGAGTACAG TGGCACCATG ATGGCTCATG GTAGCCTACA
33301  CTTCCCCGGG CTCAAGTGAT CCTCCCACCT CAGCCTCCCA AGTAGCTGGG ACTACAGGTG
33361  TGCACAACCA CACCTGACTA ATTTTGTTTA TTTGTTTGTT TTGTTTTTTG AGATGGAGTT
33421  TCGCTCTTGT TGCCCAGGCT GGAGTGCAAT GGCGGGATCT CGGCTCACCG CAACCTCTAC
33481  CTCCCAGGTT CAAGCAATTC TCCTGCCTCA GCCTCCCGAG TAGCTGGGAT TACAGGCATG
33541  CATCACCACG CCCAGCTAAT TTTGTATTTT TAGTAGAGAC GGGGTTTCTC CATGTTGAGG
33601  CTGGTCTGGA ACTCCTGACC TCAGGTGATC TGCCCGCCTC GGCCTCCCAA AGTGCTGGGA
33661  TTACAGGCGT GAGCCACCAC GCTCGGCCAC TAATTTTGTA TATTTTGTAG AGATGGGCTT
33721  TCCCTGTGTT GTCCAGGCTG GTCTTGAATT CCTGGGCTTA AGTGATCTGC CCACCTTGTC
33781  CTCCCAAAAT GCTAGGATTA CTGGCGTGAG CCACCAGGTC TGGCTGGAAA GATAATTTCT
33841  AACATTATCC TCTCTTAAAC ATTTGTTTCA AAAATTTTAC AAACATGAGA GTAATTAAAT
33901  TTGATTTTCA AAATTCCCTT GAATACTTTC TTAATAGCAC ACAGAAAGCA CAAAGTATTT
33961  TACATTTGTT TTAATGATGA AATTGTGAAC CCAAACTTAC ACAAAGAAAA ACCCGTAACA
34021  TTATACCCAT ACTTAAAACA GATGCCCTCA TATACATAGT AAAACTCTTG GGGGCAGTAG
34081  TGAAGTTGGT TATTTACTGT TTTATGAAAG TGCCATTCAG CCGGGTGCAG TGGCTCATGA
34141  CTGTAATCCC AGCACTTTGG GAGGTCGAGG CAGGCTGATC ACGAGGTCAG GAGTTCAAGA
34201  CCAGCCTGAC CAAAATGATG AAACCCTGTC TCTACTAAAA ATACAAACAT TAGCTGGGCG
34261  TGGTGGTGTG TGCCTGTAGT CCCAGCTACT CAGGAGGCTG GGGCAGGAGA ATCGCTTGAA
34321  CCTGGGAGGC GGAGATTGCA GTGAGCCGAG ATCGCACCAC CGCACTCCAG CCTGGGAGAC
34381  AGGGCGAGCT CCGTCTCGAA AAAAAAAAAC AAAAAAGTGC CGTCATAGTG ACTCAGTTTT
34441  AAGGAATAAA TCAAGGATAT TTAACTCAAT AGACTACAGT TAGCTAACGT GACTTGCACT
34501  GAAAGTTATA CGAATATTGG TACTTATTCC CCTGCCCCTG AAGTATCAAT TAAAGACTCC
34561  AAAATTCTTT TTAGAATCTT CAGAGTAAAA GCTAGAATTT GATTTTTTTA AATAATAAAA
34621  AAATACTTTG TATCTAAATC TGGTGTATAA AATAACTTGG TGGATGATGC TTCAAGGCTA
34681  TCCATCCCCA AATTTCTCCC TGAATGATAA AGAGAATAAA TGAATATGTC AATTCAAAAG
34741  TTAGAAATTT GGCCGGGCAC GGTGGCTCAC TCCTGATAAT CCTTTCGGAC GCTGAGGTGG
34801  GTGGATCGCA TGAGCTCCGG AGTTCAAGAC CAACCTGGGC AACATAGCCA GAACCCGTTT
34861  CAATAAATAA TAGAAAAAAA TGAGCCAGGC GTGGTGGTCC CAGCTACTCA GTAGGCTGAG
34921  GTGGGAGGAT CACTTGAGCT CAGGAGGTCG AGACTGCAGT GAGCCGTGAT CGCAGTACTG
34981  CACACCAGCC TTGGTGTCAG ACTGAGACCC TGTCTCAACA ACAACAAAAC AAGTTAGAAA
35041  TTTGGCTGGG CGCGGTAGCT CACGCCTGTA ATCCCAGCAC TTTGGGAGGC CAAAAAGGGC
35101  GGATCATTTG AGGTCAGGAG TTCGAGACCA GCCTGGCCAA CATGGTGAAA CTCCATCTCT
35161  ACTAAAAATA CAAAAAAAAT TAGCCGTGCA TGGTGGCATG CGCCTGTAGT CTCAGCCACT
35221  TGGGAGGCTG AGGCAGGAAA ATTGCTTGAA CCCAGGAGGC AGAGGTTGCA GTGAGCCGAG
35281  ATCATGCCAC TGCATTCCAG CCTGGGTGAT AGAGTGAGAC TCCATCTCGA GAAAAAAAAA
35341  AAAATTCTGT ATGAACTGAA CAAAATATCC TTAAATTTTA AAATACATCT GAAAGATATT
35401  TCAAAATATT TAGGAAAAAA ATTATAGGGA TCAGGCAAAT TCTGAGATTC CTTTTTCCCT
35461  GCAGCAAACA TTAGGAGTGC TGCTGTTCCT AAAAACATGG TAACTGTTGC CACACCGTAT
35521  GTTTCCTTGG CTCAGACATA AGGTTGTGTA GTTGTTATTC CAGAATAGCT AGAATAAAAA
35581  TCCAGCACAT CATTTTCTTC AGCAAGTTAA CTAACCTCTC TGTGCCTTGG TTTCATAACA
```

Figure 8 (Page 11 of 73)

```
35641  GCAACATAAG CATAACAGAA TAGCAGCAAT AGCTCCTACC TACCTCATAA GATTCTTTGG
35701  AGGAATTAAA TTAAGATTCA GAACACAGCC TAATATCTAG TAAGTAATAA TAATTGGCTA
35761  AAAAAATTTT CTTAAGATTA TATATATTCA TGGGGTACAA GTACAATTTT GCTACATTAA
35821  TATATTGCAT TGTGGTGAAA TCAGGGCCTT CAATCCATCC CGGAAAAAAA AAGTTTTTGA
35881  AAAGATTTCT GCCATGGAAA ACTTTTAATG TACAAATTCA TCCATCCAAG AAATAGAAAA
35941  TATATAAGTA TCAACTCCAA ATCCACCATA TCTATCTCTT CTACACCTTA AACAATTACT
36001  CAGAAATAGA ATGCTTGAGA TACCAGAATG CATGCATATC AAGTAATAAA TGCATGCAGG
36061  ATGTCAACGC ATCCTAGGCT TTCAAATAAA ATTGTCATAC AAAATACTTT AATATTGTAG
36121  TAACATTCTA CATGTTAGAG TGTAGAAGTT AATCGCTGAT GCAAAAAAGG AAAAGAACAC
36181  ATTATACCCA AAGCCTACAG AGAGAATCAC AATTACAAAT ATCAGCCTGC ATGTGAAAAT
36241  CTTTAATTTG AAAGTCAGAA ATATTTAAAT GATAGTCATT GTTAAATCAG ATTGTGGTTT
36301  GAAAAAAAGT TAGTTTAAAA CTGAGTTTAT GAAAAATTTG GGGATTTTAG AGACAGTGTT
36361  TTGTTTTTAA ATGTGTGTGA GTTTGTGAAG AATGTTTTAT AAAATACTGA CAGTATTATA
36421  AGATGACATT ATTATAATAC AACATAAGAA TTTTGGCCTG TACCTCTCAG CAGTCCTCAA
36481  TCACCTGCTG TACTTGACTC AATGATTATC AGAGTGGTTT GTTTTCCTTC TGTTGTGTTC
36541  CCAGTTCAGG CAGCTCAGCA ATGGCCTGTG ATTCCAGCAA TTCAAATAGC TGGTAAGTAG
36601  TTTCTTGTTT GTTTTCTCAA ATTTTCAGGG GCTTTTCTCT ACAAGTGATT TCCAGTGCAC
36661  GCCCCTCCAC CCATTCTTTA TTCCTTTACC TTCAGGAAAA CCCTCAGCGC TGCATCTCTG
36721  GTCACCGGAC CACCGTGGTA CATTTACCTA TGGCCACCAG GTGTCACCCT TCTCTTTACT
36781  ACCATGGTTT GTGAATGGTT TTGCCAGAGG TGAATAAGAA TTTAAAATGC AGGTCTTTGA
36841  TTTTTCAAAT GTAGTTGACC TTAAGAATTT ATGAATAAAG CCAGAAAAAT TAAGCTTAAA
36901  AAACACCGAA AGAAAATGAG GACTTAAAAT TTCTATTAAA AAAATTAACA GGCCACAGTT
36961  GCTGATGTTT AGTAAATGTG TTAGTGAAAT GTGTTACTGT GAAGACTGGG GTGTTTCTTG
37021  AAATCTCAGC CCAGGTGAAA TAAAACCAAT ATAAAACAAA TGCTTACCTA ATAAATTAAT
37081  TGTAACATAT TCCTTATGAG GTAGAAGAGT AAGTGAAGCC TTATAGCAGT CTGCTTTCAG
37141  TATAGTAAGA TATTAAGAGA GAAATAATTT GTCATATGCT TTCAGAATGG TTTGCTGGTA
37201  AAATAACCAA TGTCTTACAA CTTAGACGAC AATGTCCCTA GAGTGAAGAA ACACGATTAA
37261  TTCGGCTACC ACAGTTGAAT GAAAATATTC CGTAAGACAA AATGTAAAGA AATTAGAAGC
37321  AAAATAAATG TCTCCAAAAT GACAAAGCGA TTAAGTATAT ACACAAGATG AACAAGAACT
37381  TCAATAAAAT CATGCAGTAT ACAATACAAT ATACATTTAT TAAAGTATAT GCATTTTTAA
37441  TGCAACAATA ATACTAACAG GTAATAGACA AGTTGTTAAT AGTTTTTCAC TGGCTAATTA
37501  AATAACAGCT TTAATTGTAT TCATTTTATA GCTTTTCTAC AATGAGCGTA AATCACATTT
37561  ACTTTTTTCT ACATAACTTT TCTAACCACA AAAAAAGAAA ATGGTTTAAA AGAAGAGATG
37621  AGATATCTTT GCTAAAATTT AATGCCTAAA GAAGAAACTT CTGAGCTGTA TATGGTATCC
37681  TGAAGCACCT GCCCTTCAAG ACAGAATGCT TGTACCACAT TTATGCAGCC AAGTGCATGT
37741  AGTAACATAA AGTAAACACA TGCCATCTGG ATATATATAT TAAGACTCTT TTGACGGCTG
37801  GGCAGGGTGG CTCACACCTG TAATCTCAGC ACTTTGGGAG GCCGAGGCAG GCGGATCACG
37861  AGGTCAGGAG AGTTCGAGAC CAGCCTGGCC AACATGGTGA AACCCTGTCT CTACTAAAAA
37921  TACAAAAATT AGCCGGGCAT GGTGGTGCAC GCCTGTAATC CCAGCTACTT GGGAGGCTGA
37981  GACAGGAGAA TCGCTTGAAC CTGGGAGGCA GAGGTTACAG TGAGCCGAGA TCATGCCATT
38041  GCACTCCAGC CTGGGCAATA GAGTCTCAAA AAAAAAAAAA AGACTCTTTT GAACATGGTG
38101  AACTGATTTC CCAGAATCTA GCAATTCCTG AATGTCCTGG TTAGATTTTT TTTTTAATGT
38161  GCACCGGAAC CCCAGTGGCT CCATGGAAGG ACCTGGGCAT CCTCTAAGCC ACTTGGTGGC
38221  TTCCATTATA CCATCTCAAA ATGAGAGAGC TTACTCCACT TCATTGAGGG AAATACCACC
38281  AGAGTTCTGA CTCCAGAGGC ACTGGCCTAG GGAGGACACC GTGTGTGAAG CCCAGCAGGG
38341  CCACTAGCTG TCCCCACCAA TTACAGTCCT TGCGTAGGGT CCAAAGAAAT GAATGCCAAA
38401  GAGAGCAACA GAGGAGCAAG GGAGTCACAT TCCAGGACCT TCCTTCAGGG ACTTTTAAAG
38461  GAAACATGAC AGCTGAGGAT CAGTTGGTTG TTTTCTGCTG TTCCCCTTCA TGTGATTCAA
38521  GCTCACTCAG AAGAAACACA ATGAGACAAG AGAAGAGCCA TCTCCTTCCT TCTCTATTTA
38581  TTCTAGGCAT CTAAACTACT GAATGTAGTG GTGTCTGAGA TGTATCAAAC GGTCAGATTG
38641  ACTGAGTTTG AAACCTGTTT CTATCACTGA CAAACTATGA GATACTCTAT ACTTCACTTT
38701  CTTTTTTTTT TCATTTTTTT ATTTTTATTT TTATTTTTTT GAGATGGAGT CTCACTCTGT
38761  CACCTAGGCT GGAGTGCAGT GGCGCAAACT CGGCTCACTG CAAGCTCTGC CTCCTGGGTT
38821  CATGCCATTC TCCTGCCTCA GCCTTCCGAG TAGCTGGGAC TACAGGCGTC TGCCACCACG
```

Figure 8 (Page 12 of 73)

```
38881  CCCAGCTAAT TTTTTGTATT TTTATTAGAG ATGGGGTTTC ACCATGTTAG CCAGGATGGT
38941  CTCGATCTCC TGACCTCGTG ATCCACCCGC TTTGGCCTCC CAAAGTGCTG GGATTACAGG
39001  CGTGAGCCAC CGTGCCCGGC CTACTTCACT TTCTTCATTT AAAAAAGAAA TGGGGATAAT
39061  AGTACCTATC TCATAGAATT ATTGTAAGAA GTGCATGCAG TAATGCATGT AAGTAGGTGC
39121  TCAGAAGAGT CGGACACGAA GTAAGTGCTT TTATCATCCT TATCATAATT TTCATTATCA
39181  GAACAAGGAG AGACCAGGTA GAAAATTATT GTGATTCTTC AGGTCTGGAA TACTAGAGTA
39241  GCATCCCAAA TGAAGGCACC ATTAAACTTT GCAAATCTGT ATGACACCTT CATGCCAATT
39301  AGAAAAAACA CCTCTTCACA ACCCCTTTCA AGATATTTGC CTCCTACCTG CTAAAAACAC
39361  CCATCATACT ACCCACAGAT AGCCATGATG CTTTTTCTGG GACAGGTGCC TCTTCCATTC
39421  GTGCAGTGTA CAGCCTTCAT AGCTGTGCAA CTCACATCAC AATCAGATGG AAGAATCCCC
39481  AAGGCTTGGT GACAGATGAG TTACTGGGTA ACACAGAGAG AGGATTCAAA GGAAAAGTTG
39541  AACGGGTCCA GAAAATGCAT AGATACATGT GTAAAAATCT GGTAAGGTTA TGACTAGCCA
39601  CGTCCCAGGG TTCAAAGCTT TTCTCAGATG TTAAAATGAA TCATGTAAGT CCCCCAAATT
39661  TAAGGAGTCC TCTTCCAAAA ATAGGAAATG AAATGACATA GGTGTATGTC TCTGAGGTGA
39721  CGGAGGAAAT GAAGGAAGCC TCTAGATGCA GCTTGAGGTT CATGAGAGAC AGTTCCAGGG
39781  GAGAGGTCAC AGCTAGGGAT CACCGGCATG CAGGAACTCA GAAACCTAAA TGGGGAAATC
39841  TTTTTGAGGA AATGAACAGA GAAGGCTAAA ATCAAGGAGT TCGTCAGGCA ATTTCTATGT
39901  TTAGGTTCAA CTCTCTCCTG AAACATGAAG AGCTCATAAA TGCACTCCCT CTTTGAGTCT
39961  CTAGTTTTGT CTCCTTCCCA CAGTGAGTCT GCAGGCTGCG TGTCACTCAC GTTCAGCTAA
40021  GACGTAGTGC CCCATGGCTC CTCCTGTGGA GACAAGAGAC CCAGGAAAGA GGCATCACAA
40081  ACCTAGGCAC CATCTTGCCT CTTCTCTCTT CCTTATTTTC CTCATTCACC CATCTCAATT
40141  TAGACCTGGG CACTATTGGA TTTCAAGAAC CATTATCTCT CATCTGGAAA TGCTTATTGG
40201  CTTTCTAACT GGTCTCCTCA CCTCTCATCT AACTTCTTAA CAACACATTC ACCATATAAG
40261  GGAGATCGTG GTCCTCCTTT CTTAGGATCC TTCAATGACA CCCCAGTGAT CATAACCCAA
40321  TATCCCAAAA GACCCTTGGA CTCTGTATGA GCTGGCTTCT TTCTGATTCT CTTTTCCCTA
40381  CACCACAGAT GTTCAGGGGG TAGAAATGCA TAATTGGTGA GTGATAGCTA CGCAAACTCA
40441  GGGTTAAGGT ACAGTAATTA TTTCTAATCT CCCAGTATGC CTTATACTCT CCTACTTGGC
40501  ATGGTTGCTC CGTCTGTGTA GACCTCCCAT CATCTTCAAC CTCACCTAAT GGAATCCAGC
40561  TTCTCCTTCA AGATCCAGAA GGCTATCTTG ATCCCCAGCT GAATGTGATC ATTCTTTCCT
40621  TTGACACCCT AAGCATTTGC TTCCTGCCTG CTTTAGGACC TCATGGGGTC TTCTTTAACT
40681  ACATTTACTT GCTATCAATT TCATTCCCTA CCAGATTTGG GTTCTGAGAA TAGCCACAGT
40741  GACTTCTCAA CCTCAAAGCC CCTGTACTAC CTTAAACAGC TCTTGCAAAA TAGTAGGTGC
40801  TCTGAAGATG TTTGTTGAAT TAGAGACTTT CATTCTGGGG AGAACCATTA TTTTCTGTCT
40861  CCCAGGGAGC TGCTGGTGTC CCCAAAGAAT ATAAATGAGA AAAATGCTTC CCATGGATGC
40921  CAGATCCCCT CTGCCCCTCT TCCCACTGTG CCCTGGGGCA GAGGTACTAA GAGACTTCCC
40981  CCTTGTTCCT ACTCACTTGA ACCCTGCCTC TTCCTTAATA TTATGAACAA AATTCCAATG
41041  AACAAGATGA CGACAAAAAC AGCAATTCCA CTGATGACTC CAATGACTAG GGTGCCAGAC
41101  GGTGAGGGCT CTAAAACAGA AAAAGCAAGT TAAAGCCTTT GATTGCCACC CTCAGCCCAC
41161  CCCCTAACAA AGAGCAGATC CTCATCTCAC TGCCATAATT ACCTCCTCAG GCACTCCTCT
41221  CAACCCCCAA TAGATTTTCT CAGCTCCTGG CTCTCATCAG TCACATACCC CAGATCACAA
41281  TGAGGGGCTG ATCCAGGCCT GGGTGCTCCA CCTGGCACGT ATATCTCTGC TCTTCCCCAG
41341  GGGGTACAGC CAAGGTTATC CAGCCCTGGT AGGTCCCATC CCCATTGGGC AATACGTCTT
41401  TAGGTTCGAA CTCCTTGGCA TCCATTGGCT GCTTATCCTT CAGCCACTTC ATGGTGATGT
41461  TCTGGGGGTA GTAGTTCAAG GCCCGACACC GTAGAGTGGT CACTGAAGAG GTCACATGAT
41521  GTGTCACCTT CACCAAAGGA GGCACTTGAC AGGAAAGAGG AAGGATGAGG AGAGGGGATC
41581  TGTTTACCCT TGCCAGGAAG ACTGGAACTT TCACTTCCTT CTATAGGTTG GAGGAAGGAA
41641  ATACCCTTTT CAGAAAAAAA CAAGCTACAG GAGAGACACC ATTTTGTGTC CTAAGATTGG
41701  ACTCTAACAC AGTGTCACTT GGAGAGCAGT CAGATCAGCT TGTTCTCCTC ACATGTAAAT
41761  ATACATATCT GTTACCCATG TTCTTTGTTC TGATAGATAA AATTGCCCTT TATGTGCATT
41821  GAAAATGATT GAATACAGAT GGTCAGTTTC ACCTGGGTCA ACCTAGGAGG CATTGTTATA
41881  AGAAGCGGAC TTGTAAGATA GGTAGCTTCA GTGATTATTG CTATGTTCTA TGAAAGAAAC
41941  TTTTAACCTA AAGGATTCTT CTACTCTGAT AAGTGGCCTC ACTTGATATT TTGTCCTGGT
42001  ATTCATATGA TAGCTGAGAT CTCTGAATTC TCTTTTTTTT TTTTTTTTTT TTTTTAAGAT
42061  GGAGTCTCAC TCTGCTGCCT AGGCTGGAGT GCAGTGGCGC GATCTTGGCT CAGTGCAACT
```

Figure 8 (Page 13 of 73)

```
42121  TCCGCTTCCC AGGTTCAAGC GATGCTCCTG CCTCAGCCTT CCAATTAGCT GGGACTACAG
42181  GTGCGCATGA CTGTGACCAG CTAATTTTTG TATTTTTTTA GAGACGGGTT TCACCATGTT
42241  GGTCAGGCTG GTCTCAAACT CCTGACCTTG TGACCACCCG CCTCGGCCTC CCAAAGTGCT
42301  GGGATTACAG GGGTGAGCCA CCGTGCCCGG CCTTGACATT TCTGAATTTT TAACAGGTAT
42361  AAATATACAA AAGATTATTG GTTAAATAAA AAGCAAGGGC CATAGACACT TCCCTTTGAG
42421  CCATATGCAT GGAGAAAAGA AATTAAACCC ATGACTTGTG GCTGTCTCAT ACATCTCAAT
42481  TATAAGGTAG AGACTCTAGG ATTGAGAAAG TCCCTTCCCA GAATTTGGAG AGGCACACAG
42541  CCTCAGCCAC CTCTGAAACT CCAACCAGGG ATTCCGTGCC CTGCAACCTC CTCCACTCTG
42601  CCACTAGAGT ATAGGGGCAG AAGTGTGTTT CCACCATACC TTGTTGGTCC AAAACACCTC
42661  TCCCCAGCTC CAGCAACTGC TGCAGCTGTG CAGGGCAGTC CCTCTCCAGG TAGGCCCTGT
42721  TCTGCCTGGC CCGAATCTTG TGCCTTTCCC ACTCCAGCTT GGTGGGCCAG GCCCTGGGTT
42781  CTGCTGCTCT CCAATCCAGT GTGTCAGGGC AGAATTCAAG GTGGTCCTGC CCATCATACC
42841  CGTACTTCCA GTAGCCCTCG GTACTGTTGT CTTCTTGCAT TTCACAGCCC AGGATGACCT
42901  GCAGGGTGTG GGACTCTGGA AAAATCCCCA GCCTTGTTAA CTGCAACCAA AGGAATAGGT
42961  CCCTATTTCC ACCATCCCCA AGGACCAAAT GATCTCAGGA AGCAAATTCC TTCCCTCTTC
43021  CCTGCTCCCA CAAGACCTCA GACTTCCAGC TGTTTCCTTC AAGATGCATG AAAAGATGAA
43081  AAGCTCTGAC AACCTCAGGA AGGTGAGGCC CCCTCTCCAC ATACCCTTGC TGTGGTTGTG
43141  ATTTTCCATA ATAGTCCAGA AGTCAACAGT GAACATGTGA TCCCACCCTT TCAGACTCTG
43201  ACTCAGCTGC AGCCACATCT GGCTTGAAAT TCTACTGGAA ACCCATGGAG TTCGGGGCTC
43261  CACACGGCGA CTCTCATGAT CATAGAACAC GAACAGCTGG TCATCCACGT AGCCCAAAGC
43321  TTCAAACAAG GAAAGACCAA GGTCCTGCTC TGAGGCACCC ATGAAGAGGT AGTGCAGAGA
43381  GTGTGAACCT GGAGACAGAG CAACAGGCCT TAACCATGTG TAGTAGGAGG GGAGCAGGAT
43441  GTTGAGGCTC CACACACCTG CATCAACTCA TACCATCAGC TGTGTCTGGT CCTCATTTTG
43501  TGAAGGGTGA GTTGCAGTCC TGTCTTTCTT CCATATGACA GTCCTGGGTG CTCTTTCCTT
43561  GTGTGCTTTT CTCTGCCACA CGTGGCTGCC ACCCCCTCAC TGCCCCCAGA TCCTATTCCA
43621  ATACTCATGA TTAGACAGAC TCCACTAAAG CTGGTGGATT CTAGAAAATG TTAAGGTGTG
43681  TCTAGCCATG GTAGTTGAAC TCAGGAGTTG GTGCTCAGGG CAAATTAGAC CCAAATCCTG
43741  AGGAATAATT CCTTCAGTTT TTTTTTTTTT TTTTTTTTTT TTTTTTGAGA CAGAGTCTCA
43801  CTCTATCACC CAGGCTGGAG TGCAGTGGCA CAATCTCAGC TCACTGCAAC CTGCACCTCC
43861  TGGGTTCAAG GGATTCTCCT ACCTAAGCCT CCTGAAAACC TGGGACTATA GGCGTGCGCC
43921  ACCACACCAG GCTAATTTTT GTATTTTTAG TAGACATGGG GTTTCACCAT GTTGGCCAAG
43981  CTTGTCTCAA ACTCCTGACC TCAAATGATC TACCTGCCTC AGCCACCAAA GTGCTGGGAT
44041  TACAGAAGTG AGCCACCGTG CCCAGCCTTG GTCCTGAATT CTTACACTGA ACTGCCTATG
44101  TGGCCTCACC ACTTGGAAGC CTGACTGGAA TCTCAAACTT AACATGTCCA AATGCAGATC
44161  CTTGATTTAC CCCAAACTGC TCTTTCCTCT GCCTTCACCA TCTCAGAAAT GGCATTGCCA
44221  ATTACCCCAC TGCTCAGGCC AATAAAATTA AAATAAAGAA CAAAGTCAAC TTTAACTCTT
44281  CTCTTTTTCA GGGGGTCAGG GGAGACAGGG TCTTGCTCTG TCACCTAGGC TGAAGTACAG
44341  TGGCACAGTC ATGGCTCACT GCAGCCTCAA CTTCCTGGGC TCAAGCAATA CCCTCCACCT
44401  CAGCCTCCCG AGTAGCTAGG ATCACAGGTG CATGCCACCA CACCCAGCTA ATTTTTGTAT
44461  TTTTTGTAGA GAAGGGGTTT TGCTGTGTTG CCCAGGCTGG TCTTGAACTC CTGAGCTCAG
44521  GAATCTGCTC TCCTTGGCCT CCTCCTTGGC ATGAGCTACT ACACCCAGCC AATTCTTCTC
44581  TTTCTCTCAC ACAACATAGA ATCCTTCAGC AACTTCCTTC AGAATATATT CAGGAGACAA
44641  TGGTTTGTCA CTCCCTTTTC TGTTCCCACC CAGCCCACTC CACTACCTCT TGCCTGGACT
44701  GTGTAACAGC TTCCTGGCTG GGCTCCCTGC TTTTACTGTT GCTCCCTTCA TTCTGCTTTC
44761  CACATAGCAG CCAGAGCAAT CTTTTAAAAG CCTGTGACAG ATCACTGTTA CTCCTTGGCT
44821  AGAATTCACA CCACAGCCTA CAGGCGCCTG CACAACCTTG TTTGTGGCTC CTCTTCTGAG
44881  CCCATTACCT ACTTCTTGGC CTCTACTCCC CAGCACTACT TGTTTATTTT TTTCAACCCG
44941  AGCTTCTTAA CCAGGAGTTT GTCTACTAGG TGACATGTGG CAAAGTTTAG AGACATTTTT
45001  GGTTGTCAAG ACTGGGGGAG TGCTCCTAGC ACCTAGTGAG TAGGGAGGAC AGGATACTGC
45061  TAGACATCCT ACATGCAGAT GGTAGTCCCC CTTCCCACCC CCACGCCGCC CCCCCCCCCC
45121  ACACACACAC ACATGAGTAG TGCTGAGAAA ACCCGCTTTT TAATCCAACT TGCCAGGCCC
45181  ACTCAGTTTG CCTGGGAAAT ACTGCTCCCA GTCAATATCA TTCTTATTTC CTTCATGTCT
45241  CTGCTCAAGT GTCAGCCCCA GAGTGACTTG CCCTGACTTC TCTGCTTCTC ACAACACCCA
45301  TGATTTCCTG ATGTTGTATA TCTTTCTGCT CATTTGCTTA TTGTCATCTC TCCCACTAGA
```

Figure 8 (Page 14 of 73)

```
45361  ATGCAAAATA TCAAAGGGTA AAGACTTGTT TCCCTGCTCT CTCCCTTGGG GCTTGAACAG
45421  TGCAACACAT GGCTGGGACT CATTTACACT TGTAAACAAT GAATATTTCT GCTCAACATG
45481  AAATTTTATT ATTCAACCTC TAATGCAGTG TGATGTTTAA GAATCATAGC TATGAAGTGG
45541  AGACATGAGC TCTGCCACCA AAGCCCAGTG TACCATTGAA TAAATTTGCC AGGAAGCAGG
45601  CCGTGCCATG CCTCATTCTT GTCATGTGTA AAATGTGGAT ACACGTAGTA CCAAAACTCA
45661  AAGTGCTGTG CTGAGGCCGG CGTGTGACCC ACAGAACACT GTGCTACACT ACAGGGCAAA
45721  ATCACTGTCA ACTAAGATTA GAAGCAGCTG TAGTACTTGA AATAACATCA GAAAACCAGA
45781  TTATTTATGT TCTTTGTAAC CTGAAAAGAG TTATATAATC TGAATTCCAG TTAACTTCTA
45841  GTAAAATAAA CGTATTATTA GCTCCTACCT CCCTATGCCT AGTGAAAATC AAATAAGATC
45901  AGATATGAAT GTAACTTAGA AGTGAGTGCA TTGCTTACAT GTTCATTATC AGTACTTTGT
45961  AGAGAGGCCT CTTAATTACA CAGCACATTG CAAATCAATA AAGCCTAGCC GAAAAGAGAA
46021  TTGTTCAGTT CAAACGTTCA AAACTAACAT ATACTTAATT TTCCAGGCAA AAGAACAATT
46081  GCCAAGAGTG GGGAAAGGCC CGAGGTAGGC CTCTCTCAGG AGCCTCCCAC CCTAGAGACC
46141  TCCACCCCAG GTCTCACCAA AAGTGGGTGG AATGGTGAAG AATTCAGATC CCCAACGCCA
46201  CTCTTTCGCG CCCCCACCGC CCAACGCATT CGTTCTGAGG TGGAAACCCC GTGCGGATCC
46261  TGCTGTGGGT TTGCTCAGCC TTCTCGGCAA GCACTCAGGG AAGAACTTCC TGTTTGGAGA
46321  TGACTGGGGA AAAAACTGCA CAGCTGACAT TGGAAATAAA CCCGAGTTCC AGGTTCAAGG
46381  AGCCCCAGGC TTAGCTCAGC TCAAGTGAGG AACTACGAGA TTTATTTAAA AGCATTCTAG
46441  TTGGGGGAAG GGAGTGGGCG GTTCCAAAAG TCACTCCGCA GAGCCGGGAC AGCCGGGGGA
46501  GGGGGCAGGT CCTGGGGCGA GGGACCCCTA TCTGCAGTTC AGTGGTAGGC ACTCCCTCAC
46561  GGGGTCTGGA CGCAGAAAGT AGGGAGAGGG GCTTGCGGAT AGGGTTGAGC AGGTCCTCCA
46621  AAGTTAGCAA ACTCCCAAGC GCAAAGAAAA AGCTAGTTTC GATTTTTCCA CCCCCGCCGC
46681  GCCCCTAGTT CGCCCGCAGC CCTCGGACTC ACGCAGCAAG CGCCCCTGCA GGACCGCGGT
46741  CTGCAAAAGC ATCAGGAGGA GAAGCGCCGG CCTGGCTCGC GGGCCCATTT CCCCAGCTCT
46801  GGCCGCACGT CCCCGTTAAA TCTCCGCTTC TTTTGGGGGG CGGGGAAACG GGGATGGCTC
46861  CAGAAGTCAC CCTACAGCTA TTGCCTAGGC TCAGGAGATG CCCAGTAAAA CTTCCTGGTG
46921  AAAAGCAACA GGTCTTTCAG AACTTTAGTT CTCTCTCTCC TACAGCAGAA GGTACCTGCT
46981  TGTGAAACAC TAGGTGATCC AGTGTCCCCC TTGGTTTTTA AATCCTGAAG GGGTGTTGTT
47041  GATTGGGGAA AGTAGCTTCG CAATGTTCTG ATCTGAACTT TAGATATTTA AATATTTATG
47101  ATTTTCAAAA TTCAATCATA CATTTAAAAA TTTTATCTCA ACCTTAGACC AACTTATGTC
47161  TTATTTGACT TAGAAATATA AAGCTTTTTC ATTTTGTTTT TTGATTCAAA TTAATTAAGT
47221  CATAACATTA ACCAATTAGA TCCTACTGAA ACACCTTCCA CAGCCTTCAT AATTGAATTA
47281  TCTGACAAGT GTTTCACAAA CTTTACAGTA TTGGGATTAT CTGGAGAATG ATTAAACATA
47341  TTGAGGCCTG CTCCTAACCC CAGACACACT GATTTAATGG GTAATTGTTA GGTAGTTAGA
47401  CATTAGCAGT TGGGAGGGGA TGACAGAAGA GAGCGGAAAG GCTGTCACTA AGACAGCCAC
47461  TGGCCCACCT AAATTCAGGC CCAAGACTAC CCTAATGCCA CCCTAAGGGA TGGAGTTTAT
47521  GATAAAGTCT GTGGCCAAAA TATCCTGGAG AAAGAGAAAG GAGGGTACAG GTGGAAATTC
47581  CCTAAGGTGG CACATGCCCA ACAACACAAA AGCCTGTCTT CAAGTTCACC CCAAGTTCAT
47641  CATGCCATCA TTATAATAGA ATTTACATAC AGTTTTGCCC CCCCATCCCT GGGAGGCTTT
47701  TCTTAACAAA TTATAGGTAA GACCATGCAC AGTTTAATTT TAGATTGTAT AGCTATACAC
47761  TTCAATCAAA TAACATCATC CTGTCACTCA GATACAGCCC AAACCTCAAC TCCTCCCCAC
47821  AAACCCCATA AAAGCACCTT GAGCTCTGTA AAGAAGTGCT GAGTTCACTT CGCAGAAATA
47881  AGCCCGCTGT CCCTCAGAGT GTATTATTGT GCTTCAATAA ACTTTGCTTT AAGCTTGCAT
47941  TTTGGTGTTA GTTTGTAGTT CTTTGCTCAC TATCACAAGA ACTGAGATTG CTGGTTCAGA
48001  GCTCCGGCTA TAATAATCTC CTCGGTTAAA GGATCCATCC CAATGCATAA TTCCCAGTAA
48061  CAGTATGGGA TGCCACCTGG GCAATGGGAT TTTAAAAGCT TTCCTTCTCC CTCAACGAAG
48121  TTTGGGAATT ATTGCCTTAG ACATTTCAAA CAATATTAAT AAATTTAATA CACCTGATTT
48181  GCTCCAAACC TTTACATATC TAGCAAATTC AACAGGCATT ATTTTTGTAA GCATGTATGC
48241  AAATTTTGGC AATTCAAGAA AATCAAACAG GATATCAGGG CCTCGACTGT AGGCAAACAG
48301  ATACAATAAC ATTGGAAACA TGTAGAATAT TGATGATGGG CACATTGGGG CTGATAGTAC
48361  TATTCCTTTT TTTCAATTTT TGGTAAGATA TAATTAGCAT ACCATATAAT TCATCTATGT
48421  AAAATGCAAA AATTGGCCCG GCTCAGTGGC TCACGCTTGT AATCCCAGCA CTTTGGGCGG
48481  CCGAGGAAGG CAGATCACCT GAGATCAGGG GTTCGAGACC AGCCTGGCCA ACATGGTGAA
48541  ACCCCGTCTT TACTAAAAAT ACAAAAATTA GCCGGGCGTG ATAGCAGGCA ACTGTAATCC
```

Figure 8 (Page 15 of 73)

```
48601  CAGCTACATT AGAGGCTGAG GCAGGAGAAT CGCTTGAACC CGGGAGGCGT AGGTTGCAGT
48661  GAGCTAAGAT CGTGCCATCA CACTCCAGCA TGGGAGACAA GAGCAAGACT TCATCTCAAA
48721  AAAAAAAAAT TAGCTGGGTG TGGTGGCATG CACCTGTAAT TCCAGCTACT CGGGAAGCTG
48781  AGACAGGAGA ATCGCTTGAA CCTGGGAGGC GGAGGTTGTG GTGAGCCGAG ATCATGCCAT
48841  TGCACTCCAG CCTGGGCAAC AAGAGCGAAA CTCCGTCTCA AAAATAAAAT AAATAAAATA
48901  AAATGCAAAA ATTAATGGAT TTTAGTATAT TTACAGAGAT GTGCAACCAT TACCAAAATT
48961  TTACATTTCT ATCTCCCCAA AAAGAAACCA TGTTCCCCTA ATTCAGTACC CTTAATTCAT
49021  CGCCTCCCAG ATTCCTCCAT TCTCCTCCTC CTCCCCTCCC AGCCCTAGAC AATCTTTAAT
49081  CTACTTTCTT TCTATTTGGA ACATTTAGTA TACATAGAGG CATATAATAT ATTGCTTTGC
49141  CGTGACTGGC TTCTTTCATT TAGCATAATG TTTTTATGTA TGTTTTTCAT GGACCAATAA
49201  TATCTATTAT AAGGACATAC CACAACATAT TTTATTTATT CATTCATCAG CCGATGGACA
49261  TTGGTTTGTT TCTACTTTAT GGCTATTGGG AATAGTGCTG TTATAAACAT TTATGTACAA
49321  GTTTTTTTGT AGACTTATGT TTTGATTTCT TTTGGTTATA TATCTAGAAG TGGGTTTGCT
49381  GGGTCATATG GTAACACTGT TTAACCTTTT GAGGAATTGC CACATTCTTT TCCAAAGTAA
49441  GCATTTTATC CTCCTATCAG CAGTGTATGA GAGTTCTGAT TTCTCTCCAT CTTTGCCTGG
49501  GTTTTTGAAT CAGGGCCCCA GATAGAACAA AAATGTGGTT ATTCAGTTGT TCCACCATCA
49561  CTTGTTGAGA AGACTCTTTT TTCATTGAAG TGTTTTGGCA CCCTTATCAA AAATCAATCT
49621  ACCATAAATG TGAGAGTTTA TTTCTGGAGT CTCAATTTTA TCCCATTATG CTATAATCTA
49681  TAATCCTATC TTTTTTTTTT TTTGACAGAG CCTCACTCTA TTGCCCAGGT TGGAGTGCAG
49741  TGGCCCAATC CCGGCCACTG GCTCCTCCTC CCAGGTTCAA GCAATTCTCC TGCCTCAGCC
49801  TCCCAAGCAG CTGGGATTAC AGGTACCTGC CACCATGCCT GGTTAATTTT TGTATTTTTA
49861  GTAGAGACGG GGTTTCACCA TGTTGGTCAG GCTGGTCTGG AACTCCTGAC CTCAGGTGAT
49921  CTGCCCACCT CAGCCTCCCA AAGTGCTGGG ATTACAGGCA TGAGCCACCA CACCCAGACT
49981  ATAATCCTAT CTTTATGTCA GGACTACACT GTCTTGATTA CTATAGCTTT TTAGTAAATT
50041  GAATTCAAGA AGTTTCTCAA CTTCAAATTT GATCTTTTTT TGGAAGACTA TATTAGCTAT
50101  TCTCAGTCTG CTGAATTTCC CTAGGAATTT TAGGATCTAT TATCAATGTC TATTCTATTT
50161  TTGTATATGT TTTAATATTT TCATAAGAAA CTTTTTTCAT TTAAACTTTT TTTTTTAAGA
50221  AAAATAGTGA AAATCAGAAC ACTGGGGGTC AGGCGCATTT AACAGGCAGA AGAAGAATAA
50281  AAACTTGTCA TATAAACAAA AAAGAAATGA CCAATCACAT TGTGGAAGCC ATGGAGTGGT
50341  TATAGGTGCC AAAGGCTGCA GAGAAATGGT GTCAGATATA CCTGAAAATT GTCCATTGTA
50401  TTTGGCCATT AAGAGACTTA GAAGACTTAA GCCATAGATT GCTCAGTGAG ACCCCGAGGG
50461  CAAATGGTCT GAAGGTGAAT AGATCATTTC ACCTTTAAGA GAGCAGGTAG GAAGCTATAA
50521  ATCCAAGATT AAAAAGTTGA CTGAACTGTT AAGGAAGAAA CTCTAATCTT GAGCCACCCT
50581  ATCCTGGCTC CACCTTCTGC TGCAAGCAAA CAGAAATGCT GAAATTCAAC ACTCACAAAG
50641  GCTGGTAAGC TGGAAATGAC AAAAATTACT CCTGGGAAAG TCAGATTTAG AATTAGGCCA
50701  TATTTGTTGG GGTTCAGATT TTCATGTACA CTTGGGAAAG GGTTTAGCTT ATAGGCACAT
50761  GCATGAAGGG AACTGGTATA GGGCTGTGTT CATAAGGTCA AGAGTTGAAG GCCAGGCATG
50821  GAGGCTCTTG CCTGTAATCC CAGCACTTTG GGAGGCCGAG GCAGGAGGAT GGCTTGAGCC
50881  CAGGAATTCA AGACCAGCCT GGGAAACATA GGGAGATGCT GTCTTCACAA AACAATTAAA
50941  AAATAAAATT AGTCAGGTGT GGTGGCACAC ACTTGTGGTC CCAGCCACTC AGGAGGTTGG
51001  GAAGATCACT TAAGCCTGGG ACATTGAGGC TGTAGTCAGC CATGATAGTG CTACTGCACA
51061  CCAGTCTAGG TGACAGAATG AGACCCTGTC TCCAAAAAAA GAGCTGTATC CACATCCCAG
51121  GAAAGTGGTT GAAGATCTAC TTTTCTCTGT AAACCTAATA AAGAATAGAG TGACAAATGT
51181  GTGTTGTGGA AAGAAATGGG GTGAGAGCTA CGTAGATGCA AAACAATACA TCCCCACATA
51241  CCACTTGTTA ATCATCCTTT TCCACCCACT TATGGGATGA ATTGCATCTC CCCAAAAGAT
51301  ACTCTGTCCT AACCCTCAGT AGCTGTGAAC CTGACCTTAT CTGGAATACG GTGAGTTCAC
51361  TGGTTAAGAA GAGATTATAG TGGAATAGGG TGAGTCCTCC AACCAATGAC TGGGGTCCTC
51421  ACAGACACAG AGGGATGATG GCCAGGTAGA GATGGAGGCA GAGATTGGAG TTATGCTGCC
51481  ACAAACCAAA CACAGGAAGC TGCTAGAAGT GGAAACAGGC AAGAAAGAAT CCTTCCCCAG
51541  AGGCTACAGA GGGATCTTGG CCCTGATAAT ACCTTGATCT CAACTGGCCT ACGTAACTGT
51601  GAGAGAATAA ATTTCTTTTG TTCTAAGCCA CCCAGTTGAT AGTACTTTGT TACGGCAGCC
51661  CTAAGGAACT TGATATACAT TTCTTTTACT GTCATAGAAG TTTTGAATCT TTTAAGTAGG
51721  TCTGTACCCT TCCTCCCAGT GTCAACACAT GGAATTCCTC TCCTTGTGCC TTGAAAAGTG
51781  AAAGGTGTTT GAACTGGTAA TGAAAGAAAT CTCAGCATGA GGCCAGATGC TGTACCTCAC
```

Figure 8 (Page 16 of 73)

```
51841  ACCTGTAATC TCAGCACTTC GGGAGGATGA GGCGGGCAGA TCACTTGAGG TCAGGAGTTC
51901  TAGACTACTC TGGCCAACAT GGTGAAACCC CATCTCTACT AAAAACAAAA AATGTTATCC
51961  TAGCCGGGCA TGGTGCCTGT AGTCCCAGCT ACTCAGGAGG CTGAGGCAGG AGAATTGCTT
52021  GAACCCGGGA GGTGGAGGTT GCAGTGAACT GAGATCACGC CACTGCACTC TAGCCTTGGT
52081  GAGAGAGCAA GACTTGGTCT TAAAAAAGAG AAAAGAAAAA TGAAATTTCA GCATTATAGA
52141  ATAAAAATGT TTCCCCTTCC CCCCAAACTT TAAAAAAGCA GAAGTCTGCA TCATAAAATG
52201  GTCTTTGCCA ATGTTATTTT TATTATAACA AAGGAATCTT GCAAGGCTAC CAGATCTCAG
52261  CAATTGTCAC TATGTTCTGT AAAAATCACT TCCTAAAATG TCTGAATTGA CTGCTTGTCT
52321  CATTTATTTG TTTCTCGTGT CATACTGCAA TGGATATCTG TCTTGTTAGT ATAAATATTT
52381  GTGCATTTTG TTGTTGTTAA AACAGCTTTT TTGGCCTGTC TTCTTCCACC TATGAGGTAA
52441  TATAAAACTC ATGTTTAACA CTTATTTTTG TAGCAGGACA AGCTACAGAC AAAACCCCTC
52501  AGACACTGAG TTAAAGAAGG AAGGGCTTTA TTCAGCTGGG AGCTTTGGCA AGACTCACAT
52561  CTCCAAAAAC CGAGCTCCCT GAGTGAGCAA TTCCTGTCCC TTTTAAGGGC TTGCAACTCT
52621  AAGGGGGTCT GTGTGAGAGG GTCATGATCG ACTGAGCAAG TGGGGGTATG TGACTGGCAG
52681  CTGCATGCAC CAGTAATCAG AACAGAACAG GGATTTTCAC AGTGTTTTTC CACACAATGT
52741  CTGGAATCTA TAGATAACAT AACCGGTTAG GTCGGGGGTC AATCTTTAAC CAGACCCAGG
52801  GTGCAACACC AGGCTGTCTG CCTGTGGATT TCATTTCTGC CTTTTAGCTT TTACTTTTTC
52861  TTTCTTTGGA GGCAGAAATT GGGCATAAGA CAATATGAGG GGTGGTCGCC TCACTTATTC
52921  ACCCCCTTTG AGAATCTCAC TCATTAGTGG GAGTTCTCAC TTTTATTCTC ACTACCTATG
52981  TCTTCTTGAA AGACAGATTG ATAATGATTC ATATAGTACA CTTGTGCTGA AGCATTTTGG
53041  TGAGCTAAGG TAGTGATGAA GCTTTTTATC ATTTGGAGAA GTACAGGTAG CAAACAAGGA
53101  AGCAGTAAGC AGGTTTCTAT TAATATTATA ACTCCTATTA TAAGAGTTTT AAATCTTCTT
53161  AGCACTCGGA ACCATTTTTC AAACATGGCC CCAGAAACAA ATCCATACCA CACCTACATG
53221  GGCACATGTG CCACTTTTGT CATATTTCTA ACTATGTCTT CAACTACTTG CCCTTAATCA
53281  TCTATGTGTA GACAGCAATT AGTAAGGTTA AATTTCCTAC AGACCCCTCC TTCAGTTGCT
53341  AGCAAGTAGT CGAGAGCCAA TCCATTTTGA TAGATAGCAT TTTGCATCTG AGTTTCTTGC
53401  CAGGCCACAG TAGTCAGGGC TCTGCTGGTC TTATTAGTAA TTATTTCTAA GACAGCTTGT
53461  AACCGTATGA TTCAGTTGAG CATGTAAATG GGGGTCCCAT ATCCCCACAA GCCGTCTTGT
53521  GCCCAAGTAG CAGGCCCATA ATATTGTATG ATTCTCTCAG GGGGCCATTC ATTATTTTTC
53581  CAATTTTCTA TAGCTATGCT TTTTTTTTTT TTTTTTTTTT TTTTTTTTTT TTTTTGCGG
53641  GAAGCATATA CAGGGAAGCC CAGGAGTTTG CCTGTCTTTA TGGGCAGTAG GAAGAAAGAT
53701  GGTTTAGTAG TGTCAATAAC ACAACTACCT GCCCACTGGT CAGGTAATTT GGCATAAGCT
53761  GTATGCCCAC ATATCCAGTA TAATCCAGTG GGGGCTGTCC AGTCCCGGTG GGACTCTGGG
53821  TGGGTCCACA CAGTTTGCAA CTTTGGGAAT TTACTAAATA GATTTTTCTT AGTGTGGTTT
53881  GAACTCCACT AGGTGGCTGT TTTTATAGTA CTATTATACA GTTTTTGCCC AAGGCAGCTG
53941  AGTCTTCCCA CAGGAAGGGT GAAGTCCTTC CCCACTTTTG CTATACAGTA TTGTCTAATG
54001  ATTGAGGCTT TTAGGACCCA GAAGTTATCA GGGTGAGTCT TTTGAGCTGG GAATTTATCA
54061  GGAACTGGGT CTGTAGGTAC TAATTCTCGT GCTTCCCATG GCCATTGATC TCCCATTACA
54121  GTTCCTCCAC ATACATACAT AACATGAAGT GACATTGAGA GACTGGGCTA CATGCTCAGC
54181  TAATTGCAAA AACAAATTTC TTGTTTTTCC TGGAATTTCT AGTACTGGCA CATTCAGTTC
54241  ATCATAAGAA GGTTTGAAAT ACTGGCTCAG GGGAGCATTT ATAAACTTCT CCTCAAACCA
54301  CCATATTTAC TCAAGGATCC AGTCCAGCCC CAACTATTTC TAAGGTTACA CGATCCCCTT
54361  TTTTCCAGTG AGAATCAAGG GGGTTGGTTA TTACTAGTTC TAAGGGGTTA CACTGACCAC
54421  TGGTACAGGA AGGGCCACTT TTCCCTTTCT GAAGGTGGAC AGGATTCTTT TTATTTTTTA
54481  ACCAAGTTGC CTAAATGACA CAAGACCAGT ATCTACATTT ATTTCCACGC AGTCTTAATT
54541  CATGACAAGC GTACTTATTT TCTGCCATAT AGCCTCTTTC CTAATGAACA GAACCACATC
54601  CTATTTCTAA CTTATTACTA TTAATGACAG CACAGGCATC AAATTTCAAG GTGACTTGTT
54661  TGGGCATTCC TTTTTCTTCT GTTTTGGCTA ACACTTTACT CGTATCGTTT ATGAACCCCC
54721  ACCAGTCCTC AGTCCTCAAT CTTATTTCAA AAACTGTGGT CGTGGGAGGC TCAGATGGGT
54781  CATAACACAC ATCAGGTTGG TCATTTCTTG GGCTACCTAC CTTGTATAGA ATAGCATTAT
54841  ACAAACAAGT TATTTTTAGA GTCTTTGTAC ACTTATAATA ACCATAAAAT AATAAGACTG
54901  TAGCAACTTT TTGTCCTACC TCAGTGACTT GATGTATACA CTGGGAACAG CCCTCAGTCT
54961  GAGGAAGGTT AGTTGAAGTC TTTACTGTGC AAGTCCAAAT TTTAAGGAAA ATGAGTCCCT
55021  TGATGAGTTT TCTCATGTTT CGGCCATGCA TGGACCAGTC AGCTTCCGGG TGTGACTGGA
```

Figure 8 (Page 17 of 73)

```
55081  GCAGGGCTTG TTGTCTTCTT CAGTCACTTT GCAGGCGTTG GCGAAGCTGC CACGTACAGC
55141  TCACAGTCTA CTGATGTTCA AGGATGGTCT TGGAAGTTGG GCCCACTAGA ATTAACTGAG
55201  TCCAATACCT CTACTCAGTC ACTTTCAACT GGGCTTTCTG ATACCAGGAG CAAGGTGGCA
55261  GGTTTTAGGG TGTTGCAAAT TTCAATGGTT ATGCAGGGAT TTTCACATAG CAAACTTTGG
55321  TACTTGGTTA ATCTAGCATT TGTTAGCCAA TGATGTATTT ATTAAAGTCA CCACAGCATG
55381  GAGGGCCTTT AAGTTTAGGT TTTGTCCAAG AGTTAGCTTA TCTGCCTCTT GTGCTAGCAG
55441  GGCTGTTGCT GCCAAGGCTC TTAAGCATGG AGGCCAACCC TTAGAAACTC CATCTAGTTG
55501  TTTGGAGGCC CAGCCTCGGC CAGGGCCCCA CAGTCTGGGT CAAAACTCCA ACCGCCATTT
55561  TTTCTCTTTC TGACACATAG AGTGTAAAGG GTTTTGTCAG GTCAGGTAGC CCCAGGGCTG
55621  GGGCCGACAT GAGTTTTTCT TTTAACTCAT GAAAAACTCA TTGCTGTTGG TTGTAATAGA
55681  TGTAGTTTAT CCAATCTACA TTTTTATTAA CTGTCACCCA CCAAAATATT GACTCAAATC
55741  CTGCAGCTAT TTGATTTTGG GATTTAAATT GATCTGCTAT TCCCTGTGGG ACTCCAATTG
55801  CATCTAAATA GATGTGAGAG TTGAAAGACA CATAAGGGTC TTCTCTTGCT TTACGATGTC
55861  TTATTTTTCC TCCCTCTGGT TGATGAAATG CTAGGGTGAA AGGGATAGCC AATTGGACTA
55921  AAGTACAAGT GCCGCTCCAG TTATTTGGCA GAGTGCCCAG TAAAGGTCCA CCACAATACC
55981  ACCACACATC CGCTTGGGGA TGAACAAAGG CTGACTGATT GAGAAGCTCC TGAAAATTCT
56041  TAAGCTCACT GCATCCCTTC AGGTCTCCAA GGAATGCTAA GTTTCCTCCC TGTCATGAGA
56101  GACAAGAAGT GAACTTAGTT TTGGGAGATG GAAGCTGGAT GGCCCTCAGG GGTTGACCTG
56161  CAGGGTGCTG GACTTTGGGA TATAGCAGAG AGAGCTTGGC ACGACTTATT ACTCCAGGCT
56221  GTAGAATCCT GGAAAACAGT TACCATGCAG CCCATGCCTG GTCAACAGGA GGACCACCTT
56281  AGTGGAAAGG GGATAATCTG GCCCTCTGGC CTGCCATGTG CACAAGCATA ACAATTGGTT
56341  TTGTTTAATG TGTGGACAGA ATATTTGATC CATTCCAACT GGGCATTTGC ATCTTGGTAT
56401  CCTGCTTAAT TATCAAAGTT TGTTTTAAGT CTTTAACTTC TATGACCCTC TAGTAAAATG
56461  AATGTATGAT TTTAGGAAAT TACAAAAACC GGTTGGGGCA GTCCATCCTT GCTCTTTAGT
56521  GGTCCACACA ACATTCGACC AACTATGGCA TAAAAGCTCT ACATCGGGGG GCAAGACTCC
56581  TCGTTGACAC TGGGGTCTTT ATTGAAATCT CTCTGGAATA AATGGTCTCA GTTTACTAAG
56641  GCTCAGTCTG AGGAGAGTCA GGAGGGACAG AGGTACTTTT CTGAAGTACA GAGATGTCTT
56701  CGACTTGGCA AGTCCCCACA GGGTATAACA AGGCAAGCAT TAAATTCAAT AGTTTGAGGC
56761  AAAATTGACT TGGTTATGTT AATAACTAGA TGGTCAGAAA TAGAGTGAGG GAAGAAGAAA
56821  GAGTAATAGA ATAGATGAAG GAGTTAAATT TTTCTTAGCT TTAGTTTGGT AGGGTTTTCC
56881  CCTGGGACTA TGGCCCATGA CTCTGGAGGG GGTGGCACTT TCTTGACTCG GGTGTGATGA
56941  GTCCATCCCT TTTTCACCGT ATGAACAACA GTCTCGGTGG TTAGCAGCAC AAGGTAGGGT
57001  CCTTCCTAGG CTGGCTCAAG TTTTCCTTCT TTCCACCCTT TGATGAGAAC ATGATCTTCA
57061  GGCTGGTGCT GGTTTACAGA AAATTCTAGG GGTGGTACAT GTGCTAAAAG ACTTTTAGTT
57121  TTGAGGGAAA GGAAAGTGGA AGATAAACCA AGTATATAAC TTTTAAGAAG TTGACCTTTT
57181  GTTTTAAATG TGGGGACATC AGCAGTGGAC TTTATAGTCC TTGGTGCCTT CTTACTGAGA
57241  AATTTCCTTT AGCACCTATT TTTATTAGTT TTTAGACCAA AGAAAGTCAA ATGCCATTTT
57301  ATATTTGACA ACGCTTCTTG TATGTTTATA CCAGATAAGC TAGATTTCAC CTTTATATTG
57361  GTGTGTTATT AATGTTAAAC TTAGTTTTAA TAAAACTCTG TAGACATATT TATTTGATTT
57421  TTAATGTCTG ACCATAAGGT AAGATTTTTA TAGACTTTTC TTTAACCTTT TATAATTTTT
57481  GTTAAAGAAC AGGTTAGTGC TTTAAGAAAA ACCCGTTGTG TTTTTATTTT AATGTTCAGT
57541  TCACAGAAAA ACTGTATGAT ACCCCTTAAC TTTAGCCAAT ATGTTTAGAC ACAGAATTTT
57601  CTTTACAATT AAGGTTTCAA AACTTGCTTA AACCTTCAAA ACAATTTTTG TAACCTTTTA
57661  ATGTAGGTAA AAATCCACAT TCTTATGCAT CCTCATAATC CTTTTACCAA AGGTATATTT
57721  TACTTTCCTT ACATACCTTG CACATAAACT GTTTATTCAA TAGTTTTACA TTTAGAAGGA
57781  GGCCTAATTA CTTTTAAATT ATACAACATT TCTTACATAA ATTTATTTTT CTAACACACA
57841  TTTTTTTCAT GACTTTCACA GACAATTCTT CGACATGCCT CAACTTTCTG ACTTATTGCA
57901  AACATCCCTT TCTTTAAACA ACTAGTTAAT TTATCTCAGG ACAAGGATTT TCCATACAAC
57961  ATTCTTTTTT ATATAAATTC TGCCTCCTCT TTATTTCCTT TTTTTTTTTT CCGAGGATGA
58021  TAACCATTCT TTTCCAAAGC GAACTTCTTT TATGTCTGTG GACTAGACTG TCTAAGGCCA
58081  CAAGATTAGA AGTTACTATA ATACATGTTA CACTGTTAAC TTTTAGCAAA CTTTACTTTT
58141  GTTGAAAACC TTGTAAGTTT GGGATTTCAA TTATCCTTTG CTATTAATAA GACCTTATTT
58201  AGTCCAAATT AACTTAGAAT TGGTATAGAT GGCTTTTTTT TTTTTTTAAT TACCTGGGAG
58261  GAACCATCTA TCCTCCTGTC CTGAAGGGAG TTCCTCCTAG GTCTGGTCAG AGCTTTGTAT
```

Figure 8 (Page 18 of 73)

```
58321   GGTAATTAAG ATTTAGATCC CCTGTTAGGA AACCTGCCGG GTTAAGAGAA TTTTCAGTGG
58381   TTAATGTTAA ATCATCTTCT TTTTTCTTTT TTCCTTAGGA TACTTCTGAA CCGGTGAGGT
58441   GTGCTCACAA TGAGGTTTCC TGTAAAAGTT ATTTTTTTAC TTTCTTCTGT TAGCAAAGCA
58501   GTTGCCGCTA CAGATTGAAT GCATTTGGGC CATCCGCGGG TTACTGGGTT AAGGATTTTT
58561   GATAGGAAGG CCTTAATGCT TTTGGAATAT GCCCTGACAA CAAAGTGCCA GTTCCTTCCC
58621   GGTGTTCAGC CACTGCGTTG ATCCTCCACG AGGGCCTGCC ACGTGCTGCT CTGGTGAGGC
58681   GTTCCACCGG GGCAATTGCC TACCTGGGAG CGCTCTCCAG ATCTGTGTCG CTCAAACTGG
58741   CTGGAGTTCC CCGTAGGGAT GCTCCACAGG GCAGGCCTAA GTCGCCTAAG GGGCTGCCTT
58801   GACCGTCCGT TAATCACCTC TGTCTCCAAA AACCAGCTCC CTGAGTGAGC AATTCCTGTC
58861   CCTTTTAAGG GCTTACAACT CTAAGGGGGT CTGCATGAGA GGGTCGTGAT TGATTGAGCA
58921   AGCAGCGGGT ACGTGACTGG GGCTGCATGC ATCAGTAATC AGAACAGAAC AGAACAGCAC
58981   AGGGATTTTC ACAATGCTTT TCCATACAAT GTCTGGAATC TATAGATAAC ATAACCTGTT
59041   AGGTCAAAGG TCGATCTTTA ACCAGACCCA GGGTGCGGTG CCGGGCTGTT TGCCTGTGGA
59101   TTTCATTTCT CCCTTTTAAT TTTTACTTTT TCTTTCTTTG GAGGCAGAAA TTGGGCATAA
59161   GACAATATGA GGGGTGGTCT CCTCCCTTAA TTTAAACAAA ATTTTCAAAG TCCTACCCCA
59221   AGTAAATTGG CAAATATTAA TAAAGTTATG GCATAGAAAA TAAAAATGAT TGTAAAAGGC
59281   GTAAAGATAT TTCTGTGGGG AAAACATTTG TTCATTAGTT ATCAGTTAAA ATTCTGTGAA
59341   AAATAACCAC TAGAGACCCT AAAGTACCCA GGGGCTAATA ATAAGAAGGG AGGAACACCC
59401   TCTCACTCCC CACCGTTACC TGCCCAGAAG GGAAGAGGAA GAGGGTGACT CCAGGAGAGC
59461   TGTGGTCTCC CCTCCCCATA TGTCCACATA TACCTGACCT CCCCTCCCCA AAATATATAC
59521   CCAATATCTC TCCCATATAT ACATATTTAT CTGACCTCTC CACATATGTA TACCTAAACT
59581   TTCTCTATAT ATCCACATAT ACCTAACCCT CTCACACACA TATAGCTGAC CTCCAGTGGA
59641   GGAAAATGGG GAAGAGAGAA GAAGTTATCA AAGGATAAAT CTAGGTCATA CTCAGAAATG
59701   TGAAAAACAA AAACCACACA CAGAAAAAAA AAACACACAC AAAAAAGAAA TTGATAAATT
59761   TGTTTGTGTC AAAATTAAGA ATTCCGGTTC AATGAAGGAT CCCATGGATA AAGTTAAGAC
59821   ACTGCTGTAA GGATGGTAGA GAATTAAATG TCTGAATCAG ACGAAAGGAT GAGTAATTAG
59881   AATGCACAAG GCCAAGAAGA ACAAAACAGA AACTCCACAT AAAAAATGTA TGAGGCCGGG
59941   CGCGGTGGCT CATGCCAGTA ATCCCAGCGC TTTGGGAGGC CAGGGCGGGC CGATCAGGAG
60001   TTTGAGACCA GGCTGGCCAA CATTGTGAAA CCCCATCTCT ACAAAAAATA CAAAAAATTA
60061   GCCGGGCGTG GTGGTGGGTG CCTATAATCC CAGCTACTTG GGAGGCTGAG GCAGGAGAAT
60121   CACTTAAACT CAGGAGGCAG AGGTTGCAGT GAGCTGAGAT CACACCATTG CACTCCAGCC
60181   TGGGTGACAG TGTGAGACTC TGTCTCAAAA AAAAAAAAAA TTATATATAT ATATATATAT
60241   ATATATATAT ATATATATAT ATATGAAATA AATGAACAAG AAATTTAGAT ACAGGAAAAT
60301   CCAAAGCACT TGGTAATGAA AGAAAGGTAA AGTGATGTGT CCTTTTGCAT TTAAAAGAGA
60361   GCATTAACAA ATTAGAGAGC TGAATAATGC TCAGTATTGG TGTGGATATG GAGACTCAGG
60421   AATCCTCATA CACTGCTGAT GGGAGTGCCC ACTCCCTGGG AATATTTTCC AAATATCATC
60481   TCAAACATAT CCCATAAAGG TGACAGGAAA GTGTGGGCTG ACTGATATCC TTCACTGAGA
60541   GAGGTGGAGG TAAAATGAAG TCACTGCACA ATATAGAGTT GGAAGCAATG GATTAGATGT
60601   CCACATAGTT ACGTGGAAGA ATCCGTAAGA TACACACACA CACACACACA CACACACACC
60661   TTTGTGTATA TTGTTCCTGG CAGGTAGGCA TGGAGGTTTA GAGGCTTTCT ACATCACACC
60721   TACTGCACAC AGTAAATGGC CAGGCTGAGC ACTGACTTCC ATGAAGGGAG ATTGAAGGTA
60781   AGAGATTGAA GATTGTTCCC TGGTCTGGGA CCCTGCAACT GAATATGCAG AAAAAAGTAC
60841   ACCCCGCCAC CCCGCTTCCC ATCTTTCCTA CCTGATTAGA ATAGCTTTTT CAGAAAACGT
60901   TGGCCAGGGG TTGTGGCTCA CACCTGTAAT CCCAGCACTT TGGGAGGCTG AGGCGGGCAG
60961   ATCATCTGAG GTCAGAAGTT CCAGACCAGC CTGGCCAACA TGGCGAAACC CCATCTCTAC
61021   TAAAAATATA AAAAATTAGC AGGGCATGGT GGCACACACC TGTCATCCCA GCTACTCGGG
61081   AGCCTGAGGC AGGAGACTCA CTTGAAGCAC AGTGATGGAG GTTGAAGTTA GCTGAGATCT
61141   TGCCACTGCA CTCCAGCCTG GGCAACAGAG TGACACTTTG TCTCAACAAC AACAACAAAA
61201   CCCACCAAAA CTTTAAATCT ACCTATGGCC AAATGCCTGC TAAAATGAGC ACCCAAGAAG
61261   CAGTGTTCAG GAAAGTCAGA TGAATACCCT AAAATTAGAT GCAATGTTGG CTGGTCACAG
61321   TGGCTCAGGC CCTGTAATCC CAATCCTTCT TGGGAGGCCG AGGCGACAGA TCGCTTAAGC
61381   TCAGGAGATC GAGACCAGTC TGGACAACAT GGTGAGACCG TGTCTCTACA AAAACGTACA
61441   AAAATGAGCT GGGAGTGGTG GCGCGCACCT GTAGTCCCAG CTACTCAGGA AGCTGAGGTG
61501   GGAGGATCTC TTGAACCCAG AAGGCGGAGA CTGCAGTGAG CAGAGATCAT GCCACTACAC
```

Figure 8 (Page 19 of 73)

```
61561  CCCAGCCTGG ATGATAGAGC CAGACCCCCA TCTCCAGAAA AAAAAAATAA AGAGAGAGAG
61621  AGATGCAATA TTTAGGGTTC AACAAGACTG AATTTCTGAC TCCTTTCCCT ACCTCTCCAG
61681  CATGTTAGAT TCTGGGTCCT TCATCCTAAC CCCCTGTTCA TGCCATAGCC ACCCTGTGGT
61741  ACCAACTTTG GAAGCCTGGA TCTTCATCCC CTCATGATAA TGAGTGTCCC ATCAGGTCTC
61801  CATGCTCAGC TTGGCAAGAG TATCTGTCTT CTCCTCATGG GACGGTCACA TTCACCCAGC
61861  ACTGACAGGT TCCATTCCCA CTAGGGTGGC ACCCTATATG GTCTGAGTCC AGGCCTTCCT
61921  GGTCCCTCAG TAATCTCAGC ATGGTAGCAC AATCGAAAAG GGCTAGGCAC GGCAGCACCA
61981  TTTCCCACCA AGAGGTCTGA TGGCTCATCA CATAGACTGA AGGAGATTCT GAAGAGCAGA
62041  GGTGGAATGA AGAATGAATC GTGGGCTCTG CTCTTCCTAG GCCTGTCTTC CTCTCTCCCG
62101  AGATGTTAGC TAACTCATGA GAGCCAGAAA CCAACTGCAG GCTGGCCTCA GGCACTTAGG
62161  TAGTGCTTCA GCCTCAGCAG TCCACATTCT AGGAACCCTC ATAATATGGG TTGAAGTATG
62221  CATTCCCACA AAAATAAAGT TGTTGAAGTC CTAACCACCA GTACTGAAAT GGGAAAAGTT
62281  CCCTTGTCCC GCTCGCATGG CATGTGATAG GAGTGTGGCT AATTTCTTCA GTGCCTGGCT
62341  GCTCAAACCT CTAGGGGAAC ATTAAGACGG GCAGGTTGTG GGTCTCCAAC CCCATGACCC
62401  CACCACAGTG TCTAGGGTTG AATGTTTACA GCTCCTGAAG CCACAGTGGG TGTGTGTTAC
62461  AGGGTGCTCT TTTAGTTTTG CCATTTATAG GCAGCTGGTG TTAACCAACT CAATTAGACC
62521  GTCTACCTTG TCCCAAGGAC AGAAGAAGGC TTTCTGTATC CCAGGTTCTT GCCTTGGTGT
62581  ACCGGAATAA ATCAGACCAC ACCTGGGCTT AGAGAAAGAG TGCAAGGTTT TATTAAGTGG
62641  AGGTAGCTCT CAGCAGTTGG GCAAAGCCAA AAGTGGATGG AGTGGGAAAG TTTTCCCTTG
62701  GAGTCAGCCA CTCAGTGGCC CAGGCTCTCC TCCAACCACC CCAGTCAAAT TCCGCCTCAT
62761  TTTGCCAGGC AAACGTTTGT TGTGTGCTCT TCTGCCAGTG TGCTCCCCTG GACGTCCAGC
62821  TATTCGTGTC TTGTGGCAGG CCAGGGGAGG TCTTGGGAAA TGCAACATTT GGGCAGGAAA
62881  ACAAAAATGC CTGTCCTCAC CGTGGTCCCT GGGCACAGGC CTGGGGGTGG AGCCCTAGCC
62941  GGGGACCACG CCCTTCCCTT CCCCACTTCC ATATCATTTA AAGGGACCAT GCCCTTCCCT
63001  TCCCAGCACT TTCCCCCTCC TGTATCAGGA CCTGTGAATG TGGCCTTATT TGGAAATAGG
63061  GTCTTTGCAC TTCATCAGTT AAGATAAGAG TGGGCTCTAA CCCAACATAA AGGGTGTCCT
63121  TATAAAAAGG AGAAATGTCA TACACAGAGA CTGACACCTA TAGAGAGAAA ATGTGGTGAG
63181  TAGACACAGG GAGAATCACC ATTCAAGTCA AGCAATGAGT CTGGGGATAC CAGAAGCTGG
63241  GAGAGAAACC TGGAACAGAT TATCCCTCAT TGCCTTCAGA AGGAATCAAA CCTGATGATA
63301  CTTTGATTTC AGACTTCCAG CTTCCAGGAC TGTGTGACGA TAAATATCTG TTGTTAAGCC
63361  AACGAGTTTG AGGTACTTTG TTACTGCAGC CCCAGAAAAC TAATACAGTA GGTACTATGG
63421  ACTGAATTGA CTCCCCGTCG CAAAATTCAT ATGTTGAAAC CCTAACCCCC AGTGTGATGG
63481  TACTTGGAGC TGGGGCGTTT GGGAAGTCAT TATATTTAGA CAAACTCATC AGGATGTGTC
63541  TCTCATGATG AAATTCATGC CCTTATTAAA AGAGACAACA GGCCAGGTGC AGTGGCTCAT
63601  GCCTGTAATC CCAGCACTTT GGGAGGCTGA GGTGGATGGA TCACCTGAGG TTGGGAGTTT
63661  GAGACCAGCC TGGCCAACAT GGTAAAACCC CATGTCTACT AAAAATACAA AAATTGGCCA
63721  GGTGTGGTGG TGCACGCTTG TACTCCCAGC TACCTGGGAG GCTGAGGCAG GAGAATCCCT
63781  TGAAACCAGG AGGTGGAAGT TGCAGTGAGA TCACACCACT GTACTCTAGC CTGGGTGATA
63841  GAGACTCCAT CTCAAAAAAA AAAAAAAAAA AGACAATAGA GCCAGGTGCT GCAGCTGATG
63901  CCTGTAATTC CAACACTATG AGAGGCTGAA GCAGGAGGCT CGCTTTAGCC CAGGAGTTCA
63961  AGACCAGCTT GGACAAAATA GTGAGACCCC CAACTTCTAA AAATTTAAAA AATGAACTGG
64021  GTGTGGTGGT ACACATCTGA GGCTCCAGCT ACTCTGGAGG CTGAGGTGGG AGGATTGCTT
64081  GAGCCCAGGA GGAGGCTGCA GTGAGCCATT GCTGTCCAGC CTGGGCTACA CGAGAACCTG
64141  TCTCGGGAAA AGGAGAAAAC AGTGAGACCT CTTTTTCTCT CCTCCTTCTC TCCACTGCCT
64201  AAGCCCTACA AGCACAAAAA GGACACCACA TGAGCACATA GTGAGAATGC TGCTGCCACC
64261  AACAAGTCAG GAAGAGAGCG TTCACCTAGA AACTGAATTG GCCAGCACCT GGATCTTGGA
64321  CTTCTGAGCT TCCAGAACTG TGAGAAAGTT ATTTTTTTTT TAGCGACTAA GTCTATAGTA
64381  TTTTATTACA GCAGCTCAAG GTAACTAACA TAGTAGAAGG GATGAATTAT GGAGATCACA
64441  AGTCCACGCC TCCAGAAAAA GACTTCCCTA AAAATTAGTC TGAGCAAAAT TCGAATGATG
64501  AATTATTTTT AAGAACTTTT AAGGGATCTG ACAAGTTTGC AAGAGCTAGA GAATGCTTTA
64561  CAACGTGATA ATAGAATGCT CTGTGATGAC AGAAATCTTT CCACACTGTT CAAAACTAGC
64621  TACTGGCCAC TTGTGACTAT TGTGCACTTG AAATGTGACT GGTGTCTGAG GAGCAGAATG
64681  TTTAATTTTA CTTAATTTTA ATTCATTACA ATAGCTACAT GTAGCTAGGG GCTACTGGAT
64741  TGAACAGCAC AGCTCGAGTC TTTTAGAGGG AGACAGGACT CACCAAGATG GATGCTGGTG
```

Figure 8 (Page 20 of 73)

```
64801  GCCAAGCAGC AATGGCAGGT AGTACACACA CAAGAGGCAG ATGATACAAC ACATCCTTCC
64861  CAAACCTGGA GATAAGCTCA CCCCACAATC CCGCCGCTGA AATAGAGTTG ATGTTACCAA
64921  TGTGCATTTT TATGTCCTTT TCCATACAGA AAGATCATTC AGCAAGTACT ATGGTACTTA
64981  AAAAACAACA TTCAATTCAT TATTATGACA AAATTAAATT AATAGCTCTT CCTTAAACTT
65041  TTAAATTCAA TTTACAATGC TTACTATTGG CATTTATTAA TCTACCAATT TTTTCCCATA
65101  GAACCCATAG AACAAATAAT CTACCAAATT TTTAACATTC ATTTTTGGCA AGGCTTTTGC
65161  AATTTGACGA ACTTTAAGAA GAAAACTTAT AAATTGCAAT TTTTAAATCT GACATACTGG
65221  ACTTTTAAAG TATCCAATTG ACTAATGAAC AAAACTGCTC CAAATTTTTC AATTCTTAAA
65281  AATCTTAAGA CAATACTTAA TATGGCAAAT CTTAACTTCT TAAACTTTGT AAGAATGCTA
65341  ATCAACTTAG ATTGGTATAA AGTTGAGTTA AAAATCACAG GATACATCAT CTCAGCTATA
65401  AGTTTTCATG AGTTGAGTTT TTACAATCAC TTGAAATGCT TAGAATAGGA AATACGTATA
65461  AATTATTTAA CATAAAATAT TGTTACAAAA CCTCTGGAGT GTCAGTTTCT CTGGCCAGAC
65521  TTTATGCTGC AGCACCTTTG CCTGAGTTCT TGTCCTGCAT CCAGGAAGAA TTAGGTACAG
65581  AGGCAAGAGT CAAGAAGATT AGTTTTCCAA TAGTTCAGCT CACCTAGTTA ACTCCTGTTC
65641  ACAATCTTCA AAGTTATCAG AAACCTGCAA TTGAGGGTTA TAATCCATTC TTTGCAGAGT
65701  TTCAAAACAA GACAACATTT GTCTATGAAT GTTAAAATGT CCTAGGGTAG TCACAGTCAA
65761  AAACACAATT GACAAAGAAA TTTAGTCACC TCTGTGATTT ACAATAGCCT AACACAATAA
65821  CTCTAATTAT AACTGATGAC ACAAACTCAG ATATCAGAAC TCTAGAAATC CCCTATAATT
65881  TTGGAACACA CATTCACAGT TTTCACTGAA ATATGACCTG AAGATCAAAT ATCACCTTAT
65941  TTCAACAATC CTATATAACT AAACGTGTCA AATGATCCTG TTTACCTCTC CTTTGGATAC
66001  TCCAGGGGCC CTCTGTAGCA TCCAAAAGTT AGGGGTTAGC AAAGACAATT TTGAAGCTGT
66061  AAAGGCTCAA AACACTTAAT GAACCTCTAG TCATATCTGT TCTCTACTCA CTAAATGCTA
66121  GTAGCACCTC TCAGTTGTGG CTAAGCTGGG AGGATCTCTT GAGCCTAGAA GTTTGGGGAC
66181  GCAGTGAGCT ATGATTATGC CACTGCACTC CAGCCTGGGC AACAATGCAA AATCCTGTCT
66241  CAAAAACAAA AACAAAAAAC AAATTGCCTA TGCTGTGGTT ATCTCACAAT TAATAAAAAG
66301  GAAAAAAAAA GTATGCAGTC TTTGTAGGTC CTTGGGGTTT GTTGGAACTC AGAAAACAAT
66361  ACCCCAAAAT AAAGACCGCA GAAGCCAAAG TTTTTCTCTG ATCTTCTCCT GCCCTCCTGT
66421  CTCTGAGTCC CATTCTCCCC GGAGTCTAGC CATAGAAATG AGAATTCCTC TTCCTCAAGT
66481  TAGGTCATAG AAATCAAAAC ACCTTTTCCC CAGAGCCCAG CCATAAAACC TAAAAATATT
66541  ACTCTAACTT TCCCTCTGTT TTTCTGTGTA AAAACTGGCC ATAAAGAAAT TATCTGAACT
66601  ACCTTATTTG ATCATAGATC ACCAGACCGC ATTCCAGAGA GGATCCAGAA GGAAGGAATG
66661  CTGCACAGAG AGGCGAAGAA GAATCTAGAC AGACAGGCCT TGCTGGGTTT CCCTACTCTG
66721  TTTATTAGCA ATCCTATTTC TACACGGCGG CCCATACTTT GTTGAATCTA AAAAATAAAA
66781  ATGGACAATT TCCCCTGTAC ATGTTAATAC ACATTAATAA ATTGGATATA AATTGGATAA
66841  TTTATTAATA TACACATTAA TAAATTGGAT GCAGCCGGGT GCAATGGCTC ACGCCTGTAA
66901  TCCCAGCACT TTGGGAGCTG AGGCGGGCAG ACCACGAGGT CAAGACCACC CTAGCCGAAA
66961  TGGTGAAACC CCGTCTCTAT TAAAAATACA AAAGTTAGCT GGGCGTGGTG GCACATGCCT
67021  GTAGTCCCAG CTACTGGGGA GGCTGAGGCA GGAGAATTGC TTGAACTCGG GAGGCGGAGG
67081  TTGCAGTGAG CCGAGATTGC GCCACTGCAC TCCAGCCTGG TGACAGAGTG AGACTCCGTC
67141  TAAAAATAAT AATAATAATA ATAATAATAA TAATAATAAT AATAAATTGG ATGCATTTTA
67201  TCCTATTAAT CTTCCTCTTG TCGGTGGTTT TCAGCGACTC TTCAGAGGCC AAAGAGTAAG
67261  TTTTCCCTTA GCCCCTACAG GTTCTTATGT TTAATTTGTT ACTCTCATTT AAGACATAAT
67321  TAAAGTGGCT TCTCCATGAA GATTATTTCT GCATCCATTA TTTGGTAAGA TTGGCCGTTT
67381  TCTCCTTTGA TCTCTACTTC ACACTGACCC ACATAAAACA TCACTGCCTG TTTTTTTGTT
67441  GTTGTTGTTT GGAGACGGAG TCTTGCTCTG TTGCCCAGGC TGGAGTGCAG TGGTGTGATC
67501  TCCGCTCACT GCAAGCTCCG CCTCCCGGAT TCACGCCATT CTCCTGCCTC AGCCTCCTGA
67561  GCAGCTGGGA CTACAGGCAC CCACCACCAA GCCCGGCTAA TTTTTGTATT TTTAGTAGAT
67621  ACGGGGTTTC ACTTTGTTAA CCAGGATGGT CTCGATCTCC TGACCTCGTG ATCGGCCCGC
67681  CTCAGCCTCC CAAAGTGCTG GGATTACAGG AGTGAGCCAC TGCGCCCGGC CCCGTTTTTT
67741  TTTTTGGTTT TTGCATGTCT TCTCCCTTTT ACTGTAAACT ATTTCCACTA CCAGCGTAGT
67801  TATCATTTCT ACTGCTTAAT AATTGTTTTG GGGAAGTGAA TGCATCAACC CACATGAATT
67861  TCTTGTCTAT TTGACAATTT ATTCTCTTTA GGAATAGTAT TAACTCCTAA GGTCCTGGGA
67921  GCCAGTCTCT GTACTTGGCT GCTCCAGGGT CCTACTTCAG TTTCCCAGCT TCTCAGTACT
67981  GTCACTGTCA ATTGTGGGTA ATAATTATTT TTGTCCACCA AAAGACTCTG TATGTGAATG
```

Figure 8 (Page 21 of 73)

```
68041  AGTTTTGAAA TCTGCTGAGT AATACAGTGT CAACCCAGTT AATGATTTGC CGGGCGGCTT
68101  GATCAGGGGC TGTCCAACTA CCGGCATTTT GATTTGGAGC GTCATCTAGT GTCTGAAAGC
68161  ACAAACAACA TCCTACATTG TAAATGCCTT TGGCTACAGA GATTGAAACC AAAGCAAACC
68221  TATGTTTTGA ATTGTTATTC TTCAGCAGTT CTGCTAGCTT TGAAAAATCT AAAAGTTAAA
68281  AAAAAGCTTT ATATTTCATT TTCTGCCTAA ACTCTTTAAA ATTGCTAGTT GACAATTAGA
68341  TATTTTCAAT TTAATGAAAT TTTTTTTTAG TTCACAGATT AATACACAAT GGGGGAGGGT
68401  TCTTATTCTG TTGGACTTTT ACATAACCTC CACTTTAGTG CAGTCTGCTT TATGGGGTCT
68461  TGTTTGAGGT GTGTGTGTGT TTAAGGGAAT GTGGTTTACA ATCAAAATAT TGGGTTGCTC
68521  TTAGGCACAT TGTAAAGTCA CACACCTGTA TTCTTATTGA TACATAATGA TTAATAACAT
68581  TATTATTACA GCCTGATCAC CATCATTATT GATATATCTA AATAATGAAT TTTATAATTT
68641  TGCTTCCTGT CAGGCAAGAG CCAATTTCAG TGCTACCATG TTTGTATAGC AGTATTTATG
68701  TCTGTCATCC TCAGTCATTT TACTTCACTT GTTCTTAGCC AAACGGCCGA GAAGCGATGG
68761  TCATTTTACT TCAAAAATGA AAAGAATTAA TATTTTTACG TTTCCCTTAA AGACCCTATG
68821  TTTAACCTCC ACTCCTGGGT AAAATGGTCT AGTCCCTCCT TTTCATATCA TCTCTGATAT
68881  CTTTTGCACA GCCACTATTA CCTACCGTTT TCTAGATCCC TATTCTTCAA ACACCACCAT
68941  GAAGGTAGAG CCTGTCTGAA TTATTTTCTT GTCCCCTGAA CTCAGTACAT TGTTAGGCTT
69001  CTTGAAGATG TTGATCAGTT GTTTGTGGAG TGAATGAATC AGCTAGCATG ATTTTTCTAG
69061  ACCACTGAGA CAAGTGTCTA AGACACTTGT TCCTTCCCAT GTTCTTGCCT GCCTGTGCAA
69121  TCCATGCAGT CTCATGGCTT CCCAGTGCCT CAGAATTATC CCCTGTCAAA CAGGCATTAT
69181  AATTTCTGTC CACTGAAAAG GACAAAAAAC TAAGTGTATA GCTAGAAGTT AAAAATTACC
69241  GGCCAGGTAC TGTGGCTCAC TCCTGTTATT CCAACATTTT GGGAGGCTGA GGCGGGCAGA
69301  TCACCTGAGG TCAGGAATTC GATACCAGGC TGGCTAACAT GGCGACCCCG TCTCTATCAA
69361  AAATGTAAAA GTTAGCCAGG TGTGGTGGCT CGCACCTGTG GCCCCAGCTA CTCAGGAGGC
69421  TGAGGCAGGA GGATCGTTTG AGCCCTGGAG GTTGAGGCTG CAGAAAAATA GGAATATACT
69481  CTCTTTCAAG AGTTCGTGGT TTTGACTGCC ACCTAGCGTA CATCAGAAAA ACCGCATGAC
69541  ATAGGAAATG CCTGTGACAG AGGGGTAAGG TGAGAGAGGT TGATGAAGAA TGTATTGAAG
69601  GAGTGAAAAC GCTTCCATCC CTCTACTTAC TAAATATATT AGTTAAGTAG TTGGGGCATA
69661  TTTTAATTCA TGCATTTTGT AGATAGAAAA ACAAAAGTTT TATTCTGTTT GATTTAGTTG
69721  ATACTTTAAT ATGTGTGTGT TTAGGATGCA TGATTTATAA TCAGTCTGCA GCACTTCTTG
69781  GAGAAGTCTG AATTCTCATT CTCCATTTCC TTATTGGCAA CGTGAGAATG ATTACAATGG
69841  TGGTTGTCTC ATAGAATGCA GGGAGTCAGA ATGAAAATAG TCCATATAAT GCCTGGTGCA
69901  GAGGAAGGGT TCAGTTAACT GTCTGTATTA ATATTACTGA TAACAGTCAT GACAAACAAA
69961  AGCTTAACAA CAACACCACC AACAACAGTT GCAGAATTGA GCCACCAATT TGCACACAAG
70021  ATTGTAGGTA GGATGTTTTA GAAAAGTTAT TATTTAATAT ATGTATATAT TTTTGTACTT
70081  AAAATATGTC AGAGGTTGTT CTAAGAACTA TTTAAATGTT AACTCCTTAA TCCTCATAAT
70141  GACCCATGAA ACAGGTAGGC TTATTATTGT CTCTTTACAT GTGAGAACAC TGAGACACGA
70201  AAAGGTTTAT TAACTCACCC AAAGTCACAC AGCTGGTAAA ACGGCAAAAT TGAATTTGAA
70261  CTCAGACATT CCAGGTTCCA AGACAGTCTA ATTATTCTTT TGACTAATAT ACTAAGCTGC
70321  CTCTGTATTT TTCCTTGATT ACTTTGTAAA AGTATGAGGA AAATATAAGT GCTTCAAGTA
70381  ACCATGAAAA ATATAAACAA TCTATGTATC AACTGAAGCA TAATTACAAA TCCTTTGATA
70441  AGCAAACATA ATAAAAATTT GATATCAATC AAAACTTTCA TGTAATGTAA GCAGGTTGAG
70501  ATGAATTCTA TAGTAAAAAA GTGCAGAGTG CTGGAATACC ATGCTCCTAA TATATTGGCT
70561  AGGCACACCT GCCTGCTATC AAAGGTATGC ACACACCTTG GATACAGAAA GTTGGGACTG
70621  GGTAGTTATG TGAGTGTCAT CAGAATTCTT TCCCACTTGG GAAAGAATTG TCCATCATAA
70681  GCTTGGATGA TGGACAAGGA GTGAGCTCCC AGAACAGTGA TGTGGGGATA CATCCTCACA
70741  TCACAGTGAG AATGAGTGTT CTAGACTGTT TACACACCTA CCACTCCTAA ATGCACACAT
70801  ATAATTGCTT GCACACACAC ACATACACAC TCATCTCTTC TCTGGTGGTC CAGCTCTATC
70861  TCTTATCATT AGGCTTCTTG GGGCTAGTAC CTAGGGCCTG TATCCTTTCA GAGGCAGCTA
70921  AGGGAAGCAC ACATAATTAG AAAGAATGAA CCAGCTTGTT GGATTTGGTC TCTTCGCATC
70981  CAGCCCTCCA AGTTAAGGAG AGTACCATCT TTCTTAGGGT CACCAAAGGA AAAAAAAAAA
71041  AAAGAAAGAA ACAGAAGGAT ATCATACAGC AAGGATCTAA TGCAAATATG CCTCAAATGA
71101  GAGGCTACTG TGTGCTGATC CCAATCCCAG GAACTGTATG CACATTATCT AATTTAATCC
71161  TCACTGTATT TCTGGGAGTA TTATTCCCAT TTTACAGAGA AGGAACTTGG CAGGGTAACC
71221  AAGCTCATGA ATGGAGAAAC TGGGATTAAA TATAAAGCTT CCTTGCTCCA GAACTGCTGT
```

Figure 8 (Page 22 of 73)

```
71281   CTTTCTGCTC TTCCACACTA CCAGCTCAGC TGTGCTCTCT ACATGCAGGC AGTTTTACAA
71341   GTTTCAGATT AGCCTGGGAC TTCCAGGGTT TTGAATGGGT TAGGGAATGG GGAACTTTTG
71401   GGTTTACTTT CCATTTTTTC TTCATACATA TGTAATATAT AACATAAATC TATGGTATAT
71461   ATGATAAATA TATGGCTACA TATGAACTAT ATAATCACAT ATATGCATTA TAAATAAATA
71521   TTAATTTTAT AATATTTTAA AGGTTATCAA ATAAATATTA ATATAAATAA TTAAATAATT
71581   AATACTCAGC TTTGTTTTCC AAAGTGATAA ATGCCTATAT TTAGCAAAAT ATTTTTTGGA
71641   GGCCTGATAG TTTTTAGGAG TGTAAAGAAG TCCTGATATC TAAATGTTTA AGAACCACTA
71701   TTTTAGGCTG TTGTCTTCTG TCTTATTTTC CCAGCTAGAC TGGTAAATAC TTGAAGGCAA
71761   ACGTTTAGCC AGCACATTAA CATTTTATGT TTTTATTCTT TTGTGCTCTC AGTGGCTGTG
71821   TCTTTTCTAT CGATTTCTCA CACTGTATGA TGGTTATATT TGTCTGTATC TGTCCCACCA
71881   GGTATAAGTT CTTGAGAGGA CACACTGCTA GGCTGATCTT AGTTTTTATT ATTTCTCCTG
71941   GTGTCCTGTG CTTAACAAGT GCTCATTAAG TGTGTAAAAA CACAGCACAG TAAAAAACTA
72001   GACATTAAAA AATAATGTCA ACCAATCTAT TGAAATTTGC ATTTCCATGT TTCTTCCAAT
72061   ATAGTCATTG TGTCAGGTTA TGTACTTATT CTGATGAAGA CTATTGCCTA ATATACGTTT
72121   GCATCTTGTG CTTTATAACT GCCTTCATAT AGACACAGAT TGAGAAGGTG TAAAAATGTG
72181   CATATCCTCA CAATTGACAA ATTCTTATCC TTTGAGGGTA GGTTTGACTT TCTGAAATGC
72241   TTTGACATCA TTTGAAAGAA GCTTGAAGAA TAAGATAGCT GTTAATGACC CAGTTTCCTA
72301   TGTCACTTAT ACAATTATAA TGGCAATTTC AAAATGTTAG GTAAATATAT TTTGCAATAT
72361   ATTGTTCCTT TTGTAATACT CTCTATGTAT TTATTTATAT TTTTAAATTT TATATTTATG
72421   TATTTATTTT TCTGGACAGA GTCTTGCTCT GTTGCCCAGG TTAGAGTGAA GTGTTGTGAT
72481   CATAGCTCTC TGCAACTTCA AACTGCTTGG CAAAAGTGAT CCTCCTGCCT CAGCCTCATG
72541   AGTAGAGTAG CGGGAACTAC AGGCGCATGC CACTGCACCC AGCTAATCAC TATTTATTAT
72601   GCTCCTACTG TGTGCTTTAG TATATTTTCT GTTGTTTTCT GCAACCCATT TTGAGGGCGT
72661   GTTAGGGAAT ACAGATGCAG TAACTTTCGT CTCAGCCCTT GAGGTGAGGA AATATTTAGC
72721   CTCAGGTTTA ATCTAATTGT TGGCCATTTG CCTTCAAAGA TTGAAATATG AGCAAAACTG
72781   TGGCTCTGGG TTATATGTTA AAAAAAAGTT TATGGGGCTG AAGCCAGGCA ACAGACAAGA
72841   GCCCCTACAA TCTTATTTAG GCTGAAAATA TCCTGGAGTC CCTGTATTGT TGGTCTCAAG
72901   CAGATAGCAA CACTAACACT TACTCTTTGA GGCAGGCACT GCCAGTGGGG TGGCTGTTAT
72961   TATTAGCTTC ATTAATTGGT GAGTCAGGAA AAAACAGCTT TAAATCATTC AAAGTTCTGG
73021   CCTATACAGG ATTTAGTAAT ATTAGGTTAG CTACATCCAA AAGATGACAG AACCCTACTC
73081   TAAGGCTGGG CTTGGTGGTT CACACCTATA ATCTCAAAAC TTTGGGAGGC TGAGGCAGGA
73141   GGATCACTTG GTGCCAAGAG TTTGAGACCA GCCTGAGCAA CATAGTGAGA CCCCTGTCTC
73201   TATCAAAAAC AAAGAACTCT AATTGGCATA GTAGAAGGAA AAAGTGAAAG AAAAACCAGC
73261   TGTCACCCTC ATTCCTTACA CCTGTCCTAA CAACTCCTCT CACTATCCTT TGAATATATC
73321   TTGGCTGTTT GAGTCTCTCT CTAGCCCCAT TACTGCTGTT TGGACTTGAC ATTTTGCTCT
73381   GCATTTTTAA CTTTTCTACC AGGGTTTCCA GACCCTGAAG AGTGTGGCAT GAAACAAAAC
73441   TAGTCAACCT ATAATATTTA TGATGTGTGT GTAAATAAAA GAATACACAA TATATTGCAT
73501   TACAATATTT TAACTGTGTC CTCAATTTGT TTGTGGCTTT CTTGAGGACA TCAGTTTTGG
73561   GTGGGACGAC CACATCCTTA ATCTGAACTT TCCCTTGGAG GTCATTCTTT TTTTTTGAA
73621   ATAGAGTCTC GCTCTGTCAC CCAGGCTGGA GTGCAGTGGC GCAATCTCAG CTCACTGCAA
73681   CGTCCGCCTC CTGGGTTCAA GTGATTCTCC TGCCTCAGCC TTCCAAGTAG CTGGGATTAC
73741   AGATGCACGC CACCATGCCG AGCTAATTTT TGTATTTTTA GAAGAGACGG AATTTCACCA
73801   TGTTGGTCAG GCTGGTCTTA AACTCCTGAC CTCATGATCT GCCCACCTCA GCCTCCTAAA
73861   GTGCTGGGAT TACAGGCGTG AGCCACCCCG CCCGGCCAGA GGTCATTCTA ATAGACTTTT
73921   TTTTTGTTGT TGCTCACAGG CTTGTTCAAT CTTATTTCAA AATTTGAGAA ATACAGTTTC
73981   CATGGAACAC CAACCAGATA TCAGGTTGCT ATGGAGTTGA TAGTCAAAAG CTTTGTATCT
74041   TCCAGTTTTT CAGAATGGCT TCTAAAGGTT CTGATTCAGA GCTCTTAGGC GAAATTGAAC
74101   AACCAAGTGT CAAAGTACAA CATTCAGGAA GTTAAAAACA TGACTGACAT ATATGTACTA
74161   TATATAGTGA GCTTGTGTAT GTGTCAATGA ATGATTTAAT TCATTAATGA AGGAGGAAGC
74221   AGAATCACAA TTAGGTCAAA GGAAGATACG GGAGAATAAA ATATGTATTT GGTCAGGGAA
74281   AGGATGTATA CTGGAAGAGG AAGGGAAAAT CAGATATAAA GTTGTTTAAT GACTTATTAG
74341   GCAATACAAT AATAACTTTT AGGGTCATTT TTTCTATATT AAGAATTCAT TTCCATCTCT
74401   ATGACAAAAT CCTTATTAAT TTATTAAACT TCTACAAGTG AATGTTTACT TTTAGATAGT
74461   CTGGACCCAA TAAAATGTAA ACATTAAGTC AGAGTTACTT TCACGTAGGA CAGTGTTGTC
```

Figure 8 (Page 23 of 73)

```
74521   CAATAAGGTA CCACTAGCTA CACGTGATCA TTGACCATTT GGACTATAGC TAGACTGATT
74581   TAAAATGTTC TAAAAGTGTA AAATACACAC CAGGTTCTGA AGATTTATCA TTTAAAAAAG
74641   AATGTCAACT GTCTTTTTTT TTAGCTTATT TATTATATGT TGAAGTGATA ATAGTTTAGA
74701   TATATTAAGT TAAATAAAAT ATCTTAAAAT TAATTTTACT TGTTTCTTTT CATTCTTTCA
74761   ATGTGACCAC TAGAAATCTG GAAAGTATTT ATGTGATTCA CATTCTATTT TACTGTCTAG
74821   TATTGCCTTA CATCATCAGG TACCCCATAA GTAGGCTTTT TAGATAATTC TCTAATATAG
74881   CTTGGAAGGA TATGGAGAAA TATTTTTGCG TTGCTTTTAA GTTTTGCATA ACTTTTTCAA
74941   CACACTTTAT AAAGGATCTA GAAAAGGGTT GGTTACATGT TTCTCTGTCT TCTGGCCTCC
75001   ACCATGTTGC CAGGAGGTTG GGGACAAGAT TCTGGGTGGC TGGATGTCCT AATGGCTTGA
75061   GGTCTGGACT TGAGATTTGC ATATAAAGAG ATGTGATTAG ATTGAGTCGA CTAGAAAAAT
75121   CATATTAGAG AACTGAATCA CAGCGATTAA ATTTACATGT CGATTTATAA ACCAGGACAC
75181   CAATTTATAG TGAAAGAAGG TCCAGTTACC TGGTAATCAA GACGTTTCAT AGCTATTTTC
75241   ATGATGGATA TACTTAGCTG AGTTTTAAAT GAGAAGGGGG TTCATTGCAC ATAGAATAAG
75301   ATCTAAGTGA AATGTTTATT TTATTTTTTT TTTTTTGACA TGGAGTCTTG CTCTGTTGCC
75361   CAGGCTGGAG TGCAATGAGG CAATCTCGGC TTCTGGAGTG CAATGAGGCA ATCTCGGCTT
75421   CTGGAGTGCA ACGAGGCAAT CTCGGCTCAC TGCAACCTCC ACCTCCCGGG TTCAAATGAT
75481   TCTCCTGCCT CAGTTTCCTG AGTAGCTGGG ATTAGAGTTG CCTGCCACCA CGCCAGGCTA
75541   ATTTTTGTAT TTTTTTTAGT AGAGATGGGG TTTCACCATG CTGGCCAGGC TGGTCTCGAA
75601   CTCCTGACCT CAGGCGATCT GCCCGCCTCA GCCTCCCAAA GTGCTAGGAT TACAGGCGTG
75661   AGCCACCAAG CCTGGCCTAA GTGACATGTT CTTATATTGT TCCTTTCTTT CTTTTTTTTT
75721   CGACTGAGTC TCACCCTGTT GCACAGGCTG GAGTGCAGTG GCGTCATTTC GGCTCATTGC
75781   AACCTCTGCT TCCCGGGTTC AAGCGATTCC CTTGCCTCAG CCTCCTGAGT GCCACCACCC
75841   CCAGCTAATT TTTGTACTTT TAGTAGAGAT GGTGTTTCAC CATGTCGGCT AGGCTGATCT
75901   CAAACTCCTG GCCTCAGGTG ATCCGCCCCC GAGTCTCCCA AAGTGCTAGG ATTACAGGCG
75961   TGGGCCACGG GGCCCAGCCT TATATTATTT CTTTTACTAC AATATATTAG TATGATGCAG
76021   GTGCTTCAAT TGTTTATACA CTTTCCATAA TTTTGTATAA TTCTTATACC CTGTCACTCT
76081   GAGGAATAGC CGGTCTAAGT GTTTTTCCAC CACTGCTAAT TCATCCATCA CTAATCTCAT
76141   TAGACTGTTA ATTCCCAGAG GACATAAGCA CACAAGCAGA CAATGTTTAC AAATGTTGGA
76201   CAAATGTTAT TTAATAAAAC AATGGGGTCA CCCTTAGTCT AAAAGATGTT TCACTTTTCA
76261   TTTGTCATTG AACTCTTATT TGTAGGTTCC CTTTTGACTT TCCCACAATC TAAGGCTGTT
76321   CTCTTTAACA CATATTTTCA TGAAAACATA TATTTGAGCA GAAATTGTTG GGGAGTTGTA
76381   ATATTACCTT TGTCCCTAAA TATGAATCTA TAATTATATC AAATATATGG GCAGACAATT
76441   TACTTTGCCT TTAATCTCAA GAAAAAAATA GCAATTACTT GGGGTCGGAG AGTAAAATAA
76501   GAAGTAGTGA ACCTTAAAGT AGCAAACTTT AGAACAGAAT AGTTTCAGAG GGGATGAGAA
76561   GAGGTGATTT TTCAGCTCAT CAACAACAGA TCTTATAATA AATTACATGT TCTGGTACTT
76621   TTCTTGTCTT TCTGTGTTAA ATTTTGCTAT TTAAAAAAAT AAATTTCAAA TACATTGTTC
76681   ATCTTAAAAG TCAAGAGTGT GTTTTATTAA AGTCAGTTGC TTTATTTGCA ACTCAAAAGA
76741   TATATTTGAG TTCCCAACTG GAGATTGTCC TATATGGTAA CTTGCGTAAG GTATGGTTAC
76801   TGAAAGTAAC CTACAATTTT CATGGGCTGA AATTCATTTC TATATTGCAG CGTACAAAAA
76861   TAAATAAATA AAAAATGCTT GTTTTCTTTG AAAACATATT ATCTCAGTGC CTCTAACTGC
76921   CAAATCTATT GGCTTTTTTG CAGGCTTAAG GGCTCTCCCT TGTTCCTTTA TGATCTCTAT
76981   CTTGAGGGCC AGACCTCCTG CCTTACACAA CTCAGAGGGG GACCTCAGAG CTCTTTAAAA
77041   AGAGCCCAAT TTCTCGCCTG TAGAGAAGTG AAAAGGATGC CCCACCCCCA TCTATGAAAA
77101   GAGGGATTTG ATAGTTTCAA TGTCTTCAAA TCAAAGATTT AAGTCTGTAG CCCCCCACCA
77161   CCCCGGACCC TAGCAAGGCT CATGAACCCC CTCCCATCCC GCCCTAATTG CTTTGGACTG
77221   GCCGTGGAAT CCTTGTCCCA GTCCACAGTT CCTGTGCGAC TGCACGAAGA ATTCACAGAG
77281   GACCTGTGTT ACTTCCCTTG TGAAGAAACA GAATTATCAT GAAAATTTAG GTGGAAACCA
77341   TTTCGCTTTT TTCTTCAAAA ATAAGGGAAG CATGTGCCCA ACCACCCCTG GGAAAAAGAA
77401   CCTTCAGGGG CAAAGGAGCG AACAGGTAAT TTATAAGAAA AACAGAAAGT GGTCTCTGAC
77461   TGCCCCAGAC TTCCTTCGGA GTTGGGGGAA TTGGGGACGC CTGGACGCGT TGTTTTTGTG
77521   TTTGTGGAAA AAATAAATGA AGAGCATGAA GCCCGAGGCT TCTGAGATCC TTTCCTGACC
77581   AAACCCAAGT GATTTGGTGC GGGGAATTTT AATATTTTTC CCCTTTTGTG AGGTGGAACA
77641   AACACAACTT GGGAGCAGCG CAGCGGCTCA GAGCCTGCCA GCCAGGCGGG CGACCAGAGC
77701   ACCAATCAGA GCGCGCCTGC GCTCTATATA TACAGCGGCC CTGCCCAGGC GCTGCTTCAT
```

Figure 8 (Page 24 of 73)

```
77761  CGGCGCTTTG CCACTTGTAC CCGAGTTTTT GATTCTCAAC ATGTCCGAGA CTGCTCCTGC
77821  CGCTCCCGCT GCCGCGCCTC CTGCGGAGAA GGCCCCTGTA AAGAAGAAGG CGGCCAAAAA
77881  GGCTGGGGGT ACGCCTCGTA AGGCGTCTGG TCCCCCGGTG TCAGAGCTCA TCACCAAGGC
77941  TGTGGCCGCC TCTAAAGAGC GTAGCGGAGT TTCTCTGGCT GCTCTGAAAA AAGCGTTGGC
78001  TGCCGCCGGC TATGATGTGG AGAAAAACAA CAGCCGTATC AAACTTGGTC TCAAGAGCCT
78061  GGTGAGCAAG GGCACTCTGG TGCAAACGAA AGGCACCGGT GCTTCTGGCT CCTTTAAACT
78121  CAACAAGAAG GCAGCCTCCG GGGAAGCCAA GCCCAAGGTT AAAAAGGCGG GCGGAACCAA
78181  ACCTAAGAAG CCAGTTGGGG CAGCCAAGAA GCCCAAGAAG GCGGCTGGCG GCGCAACTCC
78241  GAAGAAGAGC GCTAAGAAAA CACCGAAGAA AGCGAAGAAG CCGGCCGCGG CCACTGTAAC
78301  CAAGAAAGTG GCTAAGAGCC CAAAGAAGGC CAAGGTTGCG AAGCCCAAGA AAGCTGCCAA
78361  AAGTGCTGCT AAGGCTGTGA AGCCCAAGGC CGCTAAGCCC AAGGTTGTCA AGCCTAAGAA
78421  GGCGGCGCCC AAGAAGAAAT AGGCGAACGC CTACTTCTAA AACCCAAAAG GCTCTTTTCA
78481  GAGCCACCAC TGATCTCAAT AAAAGAGCTG GATAATTTCT TTACTATCTG CCTTTTCTTG
78541  TTCTGCCCTG TTACTTAAGG TTAGTCGTAT GGGAGTTACT GAGGTATCAG ACGAATTGGG
78601  TGACGGGGTT GGAGAGTGGC CGTGGTGAGG TTACAGCATT TAAACCTTTA TTGCGGCTTC
78661  TAGGTCCCTG ACCGGAGGCT TTTCTCGCTG GCGGATGGTT TTGGGATGGC AGTCCCGCCC
78721  CAGGCCTGTG AACGGCAGAA AAGACCGCAA AACAAGAGCC AGTTTCTTAG TCTAAAGGGA
78781  TGTCCGGATT GGACTAAAAA ATTTTCAAAA GTCCCGCCCT GCTCCCGGGT TGGTCCGTTC
78841  TTCTAGTACA TGACTTTCAT TCTGTATTTA ATTGGATGGT GGAAGACGTT GCTTATTCTG
78901  TGTTTTTTGC TTTACTGTGA CTTAAAAGTT TTGCCTCTTT TCTCTTTATA TTAATGTCTG
78961  GGATTTCGGA CGCTTTCCAT GTTGTTGGTA GTCAAGTTGA TGTCTCCTGG AGGTAGTGGC
79021  AACATCCAGC CCTGGGAGGA GAGTGCGTGC AGGTACCTTT GTCCTACATT CCTCTGCTGT
79081  TAATTTCTCA TTCCTGTGGC AACGAAGGAA TGCATTTAAA AAACAGCCAC AACAGCGGCA
79141  ATAGCCCTTC CTCCACCCAA GGCAATCGTG GACCTAGGGA GTTTTTTGTG CCACATAACA
79201  TGTAGCCTTC CGCTAAACTG ACAGGTTTGA GCGTATCGAT TTTGAGCGTA TCGAAAGCAC
79261  AACTTTTAGC CAGCCATTTT GTCCTCGCAT GACTACGGTT GCTTATCCTG TTTAGACAGA
79321  CAGCAACATT TAAAAATCGA AGTTCCTTTA AACGTATTTT GTTTGGCAGT CCAAATGTTT
79381  CTATGCAGAA AACAGTATTT GTACTATTAA CTATGAAGAG TGTATGGATA AATGGGAGAC
79441  ATTTCTAATA AAGGCCTTCG TTAATGGTTC CCTCTGTTTG ACATCCATGG TGCTTCTGAA
79501  TACAGAAAGC CTAGCGTCTT ATATTCGCTT CTTTTAAAAT CTGGTGGGCA CATTTTGGTG
79561  AGACCTAAAT TATGGGGACT GGGGCTTCTG GAGATAAGCT GCTCAATTAT TCTACCATCT
79621  CCACAATGAT TAATATAGTG AGTTGATTTG TTAGTGATAG TGACCACGGA TTCATCCCAA
79681  GAAAGAGAAA GGGGAGGGAG GCAAGCAGAG AGACAGGAAG ACAGAGGCAG GGAAGAAGGA
79741  GAAAACATTC TCCCATGGTT TAAGTAATTT TGTGTTGTTA ATTTTACATT ACAACACGGT
79801  TTAACATGGT GAACCCTCTA TTTTGGTGTA AGGTTTAACA TATGGACATA TTTTTCCCAA
79861  GACCATTTAT GAACTTTCAT TTCTGCTTCC CCCTTCTTCC TCCCGTGCCA CCCTCCACGC
79921  TCCTATCAAT TTTGGCTGTT TTGTCATAGG CTAATACGCT ATAATTTCAT GGACAGTTGG
79981  ACTGTCTTAG GTTTCTCAGG TTTCTATTTT GTTCCTTTAG TCATTCCCAC AATTCTTAAG
80041  GTAGAATTGT ATTGTTTTAA ACATTGTGTT GTGTGCTATC CTCAATGCTG AGATGATTAT
80101  GTGACAAATG GCAAGTGTTC AACTAATACC TAAATCTGTA GTATCTTATC AAGCCTAATG
80161  CTACTTCACA ATGCCTACTC CATTCACCTC ACTTTATCTC ATTACTGGCA TTCTGTCATC
80221  TCACATCATC ACAAGTAAAA CGGTAAGCTA TTTTGAGAGA GATCACAGTC ATATAATTTA
80281  TATTTATATT TATTTATTTA TTTATGAGAC GGAGTTTCCC TCTGTCACCC AGGCTGGAGT
80341  GCTGTGGCAC GTTCTCGGCT CACTGCAACC TCCGCCTCAC GGGTTCAAGC GATTCTCCTG
80401  CCTCCGCCTC CCGAGTAGCT GAGATTACAG GGGCCTGCCA CCATGCCCGG CTAATTTTTG
80461  TATTTTTAGT AGAGACGGGG TTTCACTAAG TTGGCCAGGC TGGTCTCGAA CTCCTGACCT
80521  CAGGTTATCC GCCCACCTCA TCCTGCCAAA GTGCTTAGAT TACAGGCGTG AACCACCGTT
80581  CACAGACTCA AATCATTTTT ATTACAGTAT ATTGTTATAA TTGTTGTTTT ATTATCAGTT
80641  ATTGCTAATC TCTTACAGTG CCTGATTTAT AAATTAAATT CATCATTGCC ATGTGTATAT
80701  AGAAAAAAAC AGTGTATATA CGGTTCAGTA CTATCTGTGG TTTCAGGCAT CCACTGGGGG
80761  TGCAGTTTAT TAAACATGCA TTTACATTAG TCTCCCCTTT GGGAGACTAA TTAACTGAGA
80821  TGTTGTAACG TGACTTTAAT AGCAGATAGA GCTAATTTTC TCTCATTACT CTTCTTTTTC
80881  AGAATTTTCC TGGTTATTCC ATTTTTTATT TTTCCATATG TATATTAAGA TCTCTTCCAC
80941  CTCCTCCTGT TTCTCCATCT CAACATCAAA CAATTAAAAA AAAAAAAAAG GCTGGGCGCG
```

Figure 8 (Page 25 of 73)

```
81001  GTGGCTCACG CCTATAATCC CAGCTCTTTG GGAGGCCTAG GCGGGTGGAT CACGAGGTCA
81061  GGAGTTCAAG ACCAGCCTCG CCAAGATGGT GAAATCCCGT CTCTACTAAA AGTATAAAAA
81121  TTAGCCAACC ATGGTGGCAG GCGCCTGTAA TCCCGGCTAC TCGGGAGGCT GAGGCAGAGA
81181  ATTGCTTGAA CCTGGGAGGC GGAGGTTGCA GTGAGGCGAG ACCTTGCACT CCAGCCTGGG
81241  TGACACAGCG AGACTCCGTC ATAAAAAAAA AAAGCCGGAA GCAGTGGCTC ACGCCTGTAA
81301  TTCCAGCACT TTGGGAGGCT GAGTCAGGCA GATTACCTGA GGTCAGGAGT TCAGGACCAG
81361  CCTGGCCATG AAAATACAGC CTGGCCATGA AAACACACAA TAAATTAGCT GGGCGTGGTG
81421  TCACACACCT GTAATCCTAG CTACTCGGGA GGCTGAGACA GGAGAATCAC TTGAACCCAG
81481  GAGGCAGAGG TTGCAGTGAG TTAAGATGAC GCCACTGCAC TCCATCTGGG CGACAGAGCC
81541  AGACTCTCTC TCAAAAAACT AAATAAATAA AAATAAAGTT ATGGTACATT GAACTTCTGT
81601  GTTCCTTTCT CCCTTAGATA CTTTCATGGC TACCCATTTA ATTGATGTTC TTATCATCTC
81661  CAAGAGTTAG TCAGGAGAGG AATCAACCCA AGCAAAAATA GCTGATTTTC TAATTTTCCT
81721  TCAATGCCCT TTGGGGTCTT AATCCATTTG ATTTATGTAC TTTCAATTAA TCCTAACCTC
81781  GAATGTCTTC TGCAAACATG TTTCCACAGA TGAAACTCGT CAAATGAAAC ACATTCCTTT
81841  AATTTATAGA GTTAAAAATT AGAAAAATTT TCAATTCTAT TTGGCCTTTA GATTCAGTCT
81901  TGCATATGTT TTCTCAATTT TGTTCATGCT CTTTAGTTTT GTTTTATTCC ATCACAATTG
81961  TTCACATAGC TTACTGGCTT AGGTCTAATG AACCATTCAT TTGGAAATTA AAATTGGCCA
82021  TTTTAAGATG AAAAAGATTC TTGCCTCAAT TTTACTTAGT TTTTGAAACT GTCAATGAGG
82081  ACACATGTTT TTCTGTACTC TTAGATTCAC TAAGTAGTGT CTTGCAAATT TAACTGACAA
82141  AGGACAGATT AACATGCGAA AAAAAGAGCA TGCAATTTTA TTAGTATATT ACATGCACAG
82201  AGTTCCCAAA GAAAAAAAAA TTGAAACCTT AAAAACGCGG TTAGACTCAC AGACTTATAC
82261  ACCATTCCAA CAAAGGAAAG GGAGTTTGCA CTTCATGGGA TGACGAATTT GGGAATGTGA
82321  CAAGGAAATA AATACATGGG CAATAAAAAC CATGGAAGAT AAAATGAAAG ATAGAAATAA
82381  TTGTAGTAAG GTTTGTTTTT GCAGAGTCAT CTCAGTGCCA ACCTTCCATA TCTAGTGATA
82441  AGAATTGCTC TCTTTTTCCT GGTATAGCAG TTGGGGACAC TTTTACAAGG GAAATTTCTG
82501  TCACCTTCAC AAAGGGAAAT TTGGGTAAAG AGAAGACAGA GACCTCTTCC TACACCTGTT
82561  GATTTTCAAT TGCCTTCAGC TGAAAATAAC TTTTATGCCA AAGTAGAATA ATTTGGGGGT
82621  GACATCCTGA TATTCTTCAA AACTTATATT TAATTTCACA TTAGTAATTA TATCATTTTT
82681  GATTTTTAAA TTAGTTTTAT AAAATAATTT TGAAAAACGG TAATAATATT CAAATAATTC
82741  CAGAAACACT GCTGATAAGC CAAAAACATC AATGAATATT GCATAAACAA CTGATAATTC
82801  AACCATGAAA ATTTATGACA TTGTTCTTGT GTGATAAAAC TATGAGTAAC ATAAAAACTA
82861  GAGGCTACTT GTAATGCATT ATTCCAAACT TTCTGTTTTT TATTTATTTA TTTATTTATT
82921  TTGAGACATA GTCTCTCTCT GTCACCCAGG TTGGAGTGCA ATGGCGTGAT CTTGGTTCAC
82981  TGCAGCCTCC ACTTCCCCGG TTCAAGCAAT TCTCCTGCCT CAGCCTCCTG AGTAACTGGG
83041  ATTACAGGCA CCTGACACCA AACCCGGCTA ATTTTTTTGT ATTTTTAGTA GAGACGGGGT
83101  TTCGCCATGT TTGCCAGGCT AGTCTCGAAC TCCTGACCTC AGTGATCCAC CTACCTCGGC
83161  CTCCCAAAGT GCTAGGATTA CAGGCGTGAG CCACCATGCC CGGCGCATTA TTCCAAACTT
83221  TCATACACAG TGCTATCATG GCTACAAATT GAAGTATCAT ATTATACACT CCTAGGCAAA
83281  GCTCTGGATA TTTTGGCTAT ATAAGCCTGA GGGAAATGTA GTAAGGACAT TGTGGTTGAA
83341  ATTCATACCA GAGATGAACA GGCCCAGTGC AAGACAGAAT TACATCACTA AAGGATATCA
83401  GAAGAGAATA GGGATTTAGG GTACAGTGGC AACAACAGTT TTGGGAACTA GCATTTTTTG
83461  AGCACTTATT TACAATATGC CAAGCACTGT TGCTGATTAC TCTATATTTA TTTTCAAACA
83521  CATTCTTGTC ACAGCACTTT GAAGTAAGTG CCATTGTCAT TCCCACTTCA GGGTGAAGGA
83581  CTAAAGCTTG GTGTCATTAA GGATGTAGCT AGTTAGCTGT GTGTGTGTGT GTGTGTGTGT
83641  GTGCATTTTT TTTTAAATTT AAAGTCAATA AATTTTTATT TGAAGAATTT CACATCAAGG
83701  TAAACTTTGT TCCTCTAAAG AGCTGGAGTC AAAATGTATC TTCAAAAGAT TCATCTTCAA
83761  GTTAGCCCTT CTTAATAGAA CTGATGCTTA ATCCACAGTT GTCAGCCCAC AGTTCTTTTA
83821  TTTTGACTTT TTTTTTTTTT TTTTTTTGAG ACGGAGTCTC TCACTGTCAC CCAGGCTGCT
83881  GGGCAGTGGC GTGATCTCGG CTCGCTGCAA CCTCTGCCTC CCGGGTTCAA GTGATTCTCC
83941  TGCCTCAGCC TCCTTAGTAG CTGGGACCAC AGGCGCATGC CATCGTGCTC GGCTAATTTT
84001  TGTATTTTTA TTAGAGACAG GGTTTCACTA TGTTGGCCAG GCTGATCTCA AACTCCTGAC
84061  CTCATGATCC GCCTGCCTTG GCCTCTCAAA GTGCTGGGAT TACAGGTGTG AGCCACTGCA
84121  CCCGGCCTTA TTTTGCCTTC TTTAATCTCC ATTTGAACAT ACACATACTG ATGAAAACTA
84181  CAACATTCTT CACCAAAAAT CTTTGGGATT TAATTTCTTC AACCACTTTA CTTTGGGGTC
```

Figure 8 (Page 26 of 73)

```
84241  ATTTTAAGAT TAGGTGTATC TGCCTGGTTC TCAATTTGAC ACCCTTTCTC TCTAAACATG
84301  AATGAGTTCC AATCATATTT ATTCCTAAGC TATCACACTC AAATATACTA CAGATCTGTG
84361  GAATATGCCA AAAGTTAAGG TGAAAAATTA AATTATTAGG TATTTCATAG TTTTGCTAGT
84421  TTTTGATCTG TGAGTGAATA TAACTATCCT CTATGTCCTG GCACTGTTCC TCAGAAACAT
84481  AGGGTCCACA TATGTAATTT TAAATTTTTT AATAGGCACA TTTTAAAAAG TGAAAAAAGA
84541  AATCTATTTT AATGATTTGA ATCCAGTGTA ACCAAAAATT GTTTCAACAA GGTATCTAAT
84601  ATTAAAATAT TGAGTTTTTA CTTTGTTATT TTACTAGTTC TTTGAAATCT GGTGTGTATT
84661  TTACACTTAA AGCACATCAC AGTTTGGAGT AGCCACATTT CCAATGCTTA ATACTCACAT
84721  ATGGTTAGTG GCAACTATCT TGGACAGGAC AGCTTTTATA CTCTGGGAAG ACACAAGCAA
84781  ATACTTGCTC TGCAGCAGAA TCCAGATGTT TTCCAAGAAA ACACTTTTTC TGACCTGTTC
84841  CTGAAACCCA GGTAGTGTCT CTAATACTTT ATATTTTATT GGTTTGTCCT ATTGTAACCA
84901  CCCAACGGGC TCTCCTTGTC CACTTCCTAG ACAGAGCTGA TTTATCAAGA CAGGGGAATT
84961  GCAATAAGGA GCCAGCGCTA CAGGAGACTA GAGTTTTATT ATTACTCAAA TCAGTCTCCT
85021  TGAGAATTTG GGGACCAAAG TTTTTAAGGA TAATTTGATT GTAGGGGACC AGTGAGTCGG
85081  GAGTGCTGCT TGGTTGGGTC AGAGATGAAA TTATAGGGAG CCTAAGCTGT CCTCTTGTGC
85141  TAAATCAGTT CCTGGGAGTG GTGGGGTGGG GGACTCAAGA CCAGATAATC CAGTTTATCT
85201  ATATGGGTGG TGCCAGCTAA TCCATTGTGT TCAGGGTCTG CAAAATAGCT CAAGCATTGA
85261  TCTTAGGTTT TAAAATAGTG ATTTTATCCC CAGGAGCAAT TTGAGGTTTA GAATCTTGTA
85321  GCTTCCAGCT GCATGACTCC TAAACCATAA TTTATAATCT TGTGGCTAAT TTGTTAGTCC
85381  TGCAAAAGCA GTCTGGTCCC CAGGCAGGAA AGGGGTTTGT TTCTGAAAGG GCTGTTATTG
85441  TTTTTGTTTA AAAGCAAAAG TATAAACTAA GCTCCTCCCA AAGTTAGTTA ATCCCAAACT
85501  CAGGAATGAA AAGGACAGCT TGGAGTTTAG ACGTTAGATG GAGTCGGTTA GGTAAGATCT
85561  CTTTCACTGT AATAATTTTC TCAGTTATGA TTTTTGCAAA GGCAGTTTCA CTGTCCACTT
85621  CACCTCACAT CAGGCCTCTG ACTAGAGGAT TCCAACAATA CTTAGGCCAG GACACCACCA
85681  TGTCTCCTTA TCCACCCTGA GGGAGTCCAA TTTCTGAAAC AAAGGAAACT ATATATGATA
85741  GTATGAAACT ATATATGAGA AGGAAATTAT ATATGATAAT CAATTTTAGG GTTATCTTAT
85801  TGATTAGAAG ATATTAAAGT GTGACACTGC CTGGCAATGA TATCTGCTGG TAGTAAGAAT
85861  TTGGCGAATT TAGTGAAATT CCTGAGGCTG AACCTCCACT TCTGTAAAAT GGAGACAGTG
85921  AGATAATTTG CCTTACAATG CTGAAGTAAG AATTTTACAC AATAATTCAG ACCAACCACT
85981  TCATGTGGTA CTTGGCCCGT GGAAGACTAT CAATGACAGT TAGTTTATAG TTTATACTAT
86041  TAATGAATCC TTTGTTTCAT TGTTATTTCC TTCTACACGT TGGCCTCTCT AAAAGAAGGT
86101  AATATTCAAT ACAAATAAAG TTAAAACAGC TTGCAGAGTT GTCCCAGGGA ACTCACTTAA
86161  CCACTGAAGT GTTCAAATTG CTTAAGGTTG ACTTTATATT CTCCTGACTA ACCTTTCTCC
86221  TTCTGGTATT TCTTCTGAGA ACAGCACCAC CATCCAAAGC ATCATGCAAA CAGTGGTCAT
86281  CCCAGACCAG TAATTCTCAA CTCACAGGGT GCTCCTGCAG AGATGTATTT GAATAGAGTG
86341  GTAGGATGCT GAAGAAGGCC ACGTAAAATT TGGCCAGTGA TCTGGGGCAG ATTTATCCTG
86401  AAGCTAATGA AACACAAGTG TAAGGGCCTG TACTTCCAAG GTGCAGAGAG GGGCCCTACA
86461  AATGTGTTAG TTTGTCTCTC TCTCTCTCTC TGATTTTAAA ATTTGCAGTA TTAAGGTACT
86521  TTAATCACGG ATGGTTCAGG CTGCTATTTT CACTCAATCC TCCTTTTTAT TAAAATCACC
86581  ATTGTCTGAT TATGTTAGAA TCCTGATGAA AATATTTGGA ATTTGAGTAA GAGAAAGTTT
86641  AGTTGAAGAT GTATCTAGTA TGGGGATAAT AAGTTACGTG ATTTGCATAT GTGATCATGT
86701  GTACTTCATT CGTTGCCAGC CAATCTGACG TAAGAATGGC TTCAAGGAGG CCGGGCGCGG
86761  TGGCTCACGC CTGTAATCCT AGCACTTTGG GAGGCCGAGA CGGGCGGATC ACGAGGTCAG
86821  GAGATCGAGA CCATCTTGGC TAACACGGTG AAACCCCGTT TCTACTAAAA ATACAAAAAA
86881  TTAGCCGGGC GTGTTGGCGG GCGCCTGTAG TCCCAGCTAC TTGGGAGGCT GAGGCAGGAG
86941  AATGGCATGA ACCTGGGAGG CGGAGCTTGC AGTGAGCCGA GATTGCGCCA CTGCACTCCA
87001  ACCTGGGAGA CACAGCGAGA CTCCGTCTCA AAAAAAAAAA AAAAAGAATG GCTTCAAGGA
87061  ATGTTCCTAC TGCTCACTGG AATAACTCAC CTAAATTCCT GGCAAGATGC AGGTCTAGAT
87121  AAAATGTTAT GACATCTAAG TATTCAAAAC ACATTCCCAG CACTGAGAGT GAGTGTCTAG
87181  TGGAGAGTAG AAACGTATAG AGCCAGAAGC TAGTCTGGAA AGAATTCTTA CAAAGTTTAC
87241  AACTTACATG TGAAAGGAGC TTAACAGAGG ATTTTCCAAA TTTGAAAACA ATCCTAAAAA
87301  CTTACTTGAC ATTACCAATA ATGTGTTTTG AAACTGAAAT ACTTCTAAGT TATGAAGAAA
87361  ACATATTATC ATCAGCCACC CTGGAGGAAA GATTGAATTC TATTTCCATT ACCTATAGAC
87421  AACATTACAA AATAATTTCG ATCTGAAGAT GGAATCAGAG TATTCAGTCA AAACTACAGG
```

Figure 8 (Page 27 of 73)

```
87481  AAAATATACT TGGTAGTGTC ATATTCAGAA GTTAATAAAA TATGCTATTT TCTGAATTTT
87541  GTGATGGCTG TTGTTTTGTC AGCTTTTATA AAATTGGAAT TTGATTTTAT TTTCCCATTA
87601  TAAATTTATA TTTACAGTCT GCAGTACTTT TGCATTTTTA ATTTTACATT ATAGTTTTTA
87661  ATAGTTAACA AGTTGTAAAA GGTTTGATCC CCAGAAAACC TTGATCTACC CCATCAGTTA
87721  AGTATACTAA TATATTTAGA AAATGGATGA AATCAGCATT TGAATATTTT TAAATATTTA
87781  TTAAAAGAGG ACATGGGTAA AAGAGCTTTG CAGTTGCCAC CCTTCATTCT CAAATTCCCT
87841  GGATAAGGAT GACCGCATAA TCTTTGGATG GTCATACGCA AGTCTTGTGT ACTTGTTACA
87901  TAAATCTATT TAGTGGACTT TTGGCAGTGT GTACTGAGGC CAGTTTCTTC CACCTGAGCT
87961  CTGACTCCAC CTCCAGCAGC CCAAAACCAA TACTGAATTT TGGGGTCAGC TATTGTTTTT
88021  GTGGACTTAG GTAACTACAC ACACATTGTC TTTATGATAG CTTTAATAAT ACTGCCATCA
88081  GAACTAAAAT TGTCACGTGG ATTAAAAGGA GTGACGGTGG TGTCCCCAGG AGCCTTTCAA
88141  TATGTAAGTA TTTACACATA TACATGCTAA AAAGACCCCT AGGAATTTTT TAACAAGGGC
88201  AAAACAGTAA CTCAGCTTGT TTTCTCGCAG TAAAACCGGT TGAAAAGGCC TGATAGACTT
88261  GTCTGCAGTT ACAAAACTTG TGTGTAGTTA TCACCTTTAT ATCTCCTGGA AACTAACATA
88321  GACAACCGAA TGGGTTACAA CTGTTTTTAA GTGAAATTGT GAGTGGCTCT GAAAAGAGCC
88381  TTTTCAATGA GGAAGAAACG GGCAGACTTA TGCCCTTTCC CCACGGATGC GACGTGCCAG
88441  CTGGATATCT TTGGGCATGA TGGTGACGCG TTTAGCGTGA ATAGCGCACA GATTGGTGTC
88501  TTCGAAGAGT CCCACCAGGT AGGCCTCACA AGCCTCCTGC AGCGCCATCA CCGCAGAGCT
88561  CTGGAAACGC AGGTCGGTTT TGAAGTCCTG GGCGATTTCT CGCACCAGGC GCTGGAACGG
88621  CAGCTTCCGG ATCAGCAGCT CGGTGGACTT CTGGTAGCGA CGGATTTCGC GCAAGGCCAC
88681  GGTGCCCGGG CGGTAGCGAT GAGGTTTCTT CACGCCACCG GTGGCCGGAG CGCTCTTACG
88741  GGCTGCTTTA GTAGCAAGCT GCTTGCGCGG AGCTTTGCCG CCGGTAGACT TGCGAGCTGT
88801  TTGCTTCGTA CGAGCCATTT GCAATGAGAG CACACACAAA AGTGTAGTGA ACTGAGAGCA
88861  AGTGGCCTTT AAATATAGTG AGAAACATTC TGATTGGTCC TGTAATATTT CAAAAGTCCC
88921  GCGCGATAAA ATCATTGGCT GAAGAGTGAC CAGACTGATT GGTTCATTAC TAGACAATCT
88981  TATTGGATGA GTTGCCCCAC CGCCCATCCT GTCCTTTTCG TTTCAGTTAT CTGCAGCGAC
89041  AAATTGTCTA AAATTCTAGT TCATCCAGTC CCAAAGAACA GAGTGTATAA CAAGGTATCT
89101  AAGGATTTTT AAAATGTAAA TTCCGATTCA GTAAGTTTGA GTGGGACTTG AAATTCTGCA
89161  TTCCTGACAG TCTCGCAAGT TATCAATGCT GGTGAACACT CACTAAACCA CCAGAAACGT
89221  TCAGACTCAT GTCGGGAAAT AACGCTTATA TTCAGAGAAT GAGATTCCAT GCTATTTTGT
89281  TACTGGCGAA CAGCAAGTTT CCTTGCCCTT TGTTTTCTAA GTCCAAGTCA CATTCCCACC
89341  CTGCCTGTTC TCAAAATGTC TTATTTTGGT TGGCCTTAAG TTTCACTTTG TATACTCTAA
89401  AATGTACTTT CTAAAGGAAG GTGTTATTTT CTCGAAACTT AACTTTTTAA CACCATTAGG
89461  CTAGGGGGGC GGTGGCTCAC GCCTGTAATC CCAGCATTTT GGGAGGGCGA GATGGGACGA
89521  TCACTAGAGG CCAGGAGTTC AAGACAACCC TGGCTAAAAT GGTGAAACCC CGTCTCGCAT
89581  AAAAATACAA AAACTAGCTG GGCGCGGTAG CAGACGCCTG TAATCCCAAG TACACAGGAG
89641  GCTGAGGCAT GAGAACCGCG TGAAGCGGCG GGGTGGAGGT TGCAGTAAGC CGATATCGCG
89701  CCGCTGCACT CCAGCCTGGG TGACAGAACT AGACTGTCTC AAAACAAACC AATCCAAACG
89761  AAAAGCAAAA AATACCCTAA CAGAAGCAAG TTATCATCCT TTCTTGTGTA ACTATGGACG
89821  GCTCTGAAAA ATGCCGTTTC AAGTGTAAGC TACGTTTTCT GATTTGAGTG TTTACTTGAC
89881  CTTGGCCTTA TCGTGGCTCT GTTATTTTGG CAACAGGACG GCCTGAATAT TGGACAGGAC
89941  GCCTCCCTGA GCAATAGTGA CGTTGCCCAG CTGCTTGTTG ACCTCCTCGT CGTTTCGGAT
90001  GGCCAGCTGC AGGTGGCGGG GGATGATGCT GCGGGTCTTG TCACGTATGG CGCTGCCCAC
90061  CAGTTCTAAG ATCTCGGCGG CCAGGTATTG TAAGTACACT GGCGCACCGG CTCCGACCGG
90121  CTCAAAATAA TTGCCCTTTC GAAAAAGATG ACGGACTCTG CCCTATTGGG AACTGCAAGC
90181  CCGGTAGCGA CGAACAAGTT TTTGCTTTAG CTCCATTTTC CACGTCCGCA AATAGCGACC
90241  TATGAAAGCA GCGGAAAACT GTGAAAGACA AGCAAGCTGG AATGGCGCCT GAACAAATCC
90301  TTTTATACAA ACTGCAAGGC TGCAATAGGA AGCTATCCTA TTGGTCAATT ATGTTTGGTG
90361  CTTTATCCAA TAGAAAAAGA TAACATAAAT TCCATATTTG CATAAACCCC ACCCCTCAGT
90421  GAAACCGTGT TTCTTTTGTC CAATCAGAAG TGAGGAATCT TAAACCGTCA TTTGAATCTC
90481  AGGACTATAA ATACATGGGC TCTGAACTGT TCTCTGTACT ACTCTGTAGT GGAGAGTGTT
90541  AGTAGCTTTT CTATTCTGTT TAGGAATAGC AATGCCTGAA CCCTCTAAGT CTGCTCCAGC
90601  CCCTAAAAAG GGTTCTAAGA AGGCTATCAC TAAGGCGCAG AAGAAGGATG GTAAGAAGCG
90661  TAAGCGCAGC CGCAAGGAGA GCTATTCTAT CTATGTGTAC AAGGTTCTGA AGCAGGTCCA
```

Figure 8 (Page 28 of 73)

90721 CCCCGACACC GGCATCTCAT CCAAGGCCAT GGGGATCATG AATTCCTTCG TCAACGACAT
90781 CTTCGAGCGC ATCGCGGGCG AGGCTTCTCG CCTGGCTCAC TACAATAAGC GCTCGACCAT
90841 CACCTCCAGG GAGATTCAGA CGGCTGTGCG CCTGCTGCTG CCTGGGGAGC TGGCTAAGCA
90901 TGCTGTGTCC GAGGGCACTA AGGCAGTTAC CAAGTACACT AGCTCTAAAT AAGTGCTTAT
90961 GTAAGCACTT CCAAACCCAA AGGCTCTTTT CAGAGCCACC TACTTTGTCA CAAGGAGAGC
91021 TATAACCACA ATTTCTTAAG GTGGTGCTGC TGCTATTCTG TTTCAGTTCT AGAGGATCAA
91081 CTGGAATGTT AGCGAAGACA AGTTTTAGAG CCAAGGTTAA CTTGGACGGG GCCGTGCGCG
91141 GTGCCTCTTG CCTTTAATCC CGGCAATTTG GGAGGCCGAG GCGGGCGGAT CACGAGGTCA
91201 GGAGATGGAG ACCATCCTGC TTAACACGAT GAAACCCCGT CTCTACTAAA AATACAAAAT
91261 AATTAGCTGG GCGTGATGGT GGGCGCCTGT AGTCCCAGCT ACTCGGGAGG CTGAGGCAGG
91321 AGAATGGCGT GAACGCGGGA GGCGGAGCTT GCAGTGAGCC GAGATCGCGC CATGGCACTC
91381 CAGCCTGGGT GACAGAGCGA GACTCCGTCT CAAAAAAAAA AAAAAAAAAA AATTAAAAAA
91441 ATATGAAGTT TTGAAGCAGA AATTATTTTG TCGTATGTTC TTTCATAAAT TTTTTGCCTG
91501 CCTGCCTTCT TCCTTTGTTA CAGAACTCCA ACACTTACCC AAAGGTAGCT GTTGGGTCAG
91561 GGTTTCTGTA CTATAGTCCC TTCTGTGGTG GCCAGAAATA TGTTACAGGA AAGAGGTCCC
91621 CATCCAGACC CCAAGAGAGG GTTCTTGGAT CCCGCGCAAG AAAGAGTTCA GGGTGAGTCC
91681 GCAGTGCAAA GTAAATGCAA GTTTACTAAG AAAGTAAAGT GGTGAAACGA CAACTACTCC
91741 ATAGACGGAG CAGGACATTC CCGAAAGTAA GAGGAGGAAG GCATCCACCC TAGGTACAAT
91801 ACTTGTATAT ATGGGGAGAT GTGCTCTGCT ACAAGTTTGT GATAAAGGAT TAATTTTCTT
91861 AGTTACTATA TTTTGCAAGA ATCAACATTA TTATCTTTAA ACAAAATTAA GAATGCCTTT
91921 GTTCTCCAGA TATAGGGATA TCTGGACACT CCTAAGTCTG AGTCTGTTTA GTAAACATTA
91981 TTTATTTGTT CCCTTAACCG TAAACATCTA GAAGCTAGGA ATGACTGACT TTCTGGGAAT
92041 GCAGCCCAGA AAGTCTCAGC CTCATTTTCC TAGCCCTCAC TCAAAATGGA GTTACTCTGG
92101 TTCAAGTAAC TCTGACACTT TTCTTCTCTT TTTTTCTTCT TTTTTCCTTC CTTTATTTTT
92161 TATTTTTTAT TTTTGAAATA AGAAATCAAG AATACTTGAT GTTTCATCTA AAACAATACC
92221 CATAATTGAT AAGCCAAAAC AAAAACCTAG GTCTTCTAAC TCAAAACTAG GATGTTTTGC
92281 TGTCTCTGCT GATACTCGGC TGATCGTTAA TAGGTAATTA ACAAACAAGC CTTGCTATGT
92341 CCCCCTCAGT TTATTACCAT TAGATCATAT GCCTACTGTC AATCATATTA ATCCACAACT
92401 ATGCATTTCA CAAAACTTGC CATAAAAATT CACAGGTTTC CCGCTTCCCT CGAGTTTTCA
92461 TTTCCGAAGG GTCCCATGTA ATATAAAACT TATATTAAAT ACATTTGTAT GCTTTTCTCT
92521 TGCTAATCTT TTTTTTTGTT TTTTGAGACT GAGCCTTGCT CTGTCACCCA GGCTGGAGTG
92581 CAATGGCGCG ATCTCGGCTC ACTGCAACCT CCGCTTCCCA GGTTCAAGCG ATTCTACTGC
92641 CTCGCCCTCC CGAGTAGCTG GGACCACAGA TACGTGCCAC CATGCCCCGC TAATTTTTGT
92701 ATTTTTAGTA GAGACAGGGT TTCACCGTGT TGGCCAGGAT GTTCTCAATC TCCTTACCTC
92761 GTGATCCGCC CGCCTCGTCC TGCCAAAGTG CTCGGATTAC AGACGTGAGC CACTGCACCC
92821 GACCAATCTG TCTTTTTGTA GAGGGGCCTC AAGCATGAAC TTACTGATGG GTGAGAAAAA
92881 CAGAATTTTC TTTTCCCCTA CAATATAAAC ATTAATTGTA ATGTTATCAT TCAGGACATT
92941 TTGGTGACCA ATCTTACAGA AATTTTATCT TGTGCAAGTC TATGCAAACC AATATGTAAA
93001 TCTTCTATAA GTGAGATTGT ATTTCACTTT TCTAGTATCC TTTTAAATTA ATAAAAGAGA
93061 TTCTAATGAT TATTTTCATT ACTGCATTTC ATTGTAGGGA AGTAGATAAT TGCCCTTTAT
93121 TCACTGACCT TCGCTTTTTA AAAATTTAAA CCATGTTACC ATGAAAATGC TTTTCAGTAT
93181 TTCTCTACAC ACAAGATTGC TGTAAGGGCA AAAATAGAGA TAGGAATCAT GCATCCATTG
93241 ATATACATAT TTTGATTTTT AATACATGTT ACCAAGTTGC CTCCTGAAGG TCTGTTTACA
93301 CTCTCACCAA CAGGGTGTTT TTTCCTGACT TCCACAAATG CTCTTGAACA GTGGGTGTGT
93361 TAGTCTGTTC AAATTGCCGA CATGAACAAT TAAATCTCAT TGTTGTTTTT ATTTTTAAGA
93421 CAATTATTGT TTGAGACTGC ACATTTTGAT AATAACATTT CTTCTATTAT GGTTTGATTA
93481 CTCATGATTC TTGCCCATTT TCTTTTGGGA TGTTGCCTTA TGTACATTAT TTTAAATAGA
93541 TAGCTCCATG TATTAAAAGA TTATTAAGTT TGAGGGCTTA TGATATGTCA GTTACATTTC
93601 TAAGATTTTT TTTTTTTTTT TTTTTGAGAC GGAGTTTCAC ACTTGTTGCC CAGGCTGGAG
93661 TGCAATGGTG CGATCTCGGC TCACCGCAAC CTCCGCCTCC AGGGTTCAAG CAATTCTCCT
93721 GCCTCAGCCT CCCCAGTAAT TGGGACTACT GGCAAGCGCC ACCACGCCTG GCTAATTTTG
93781 TATTTTTATT AGAGATGAGG TTTCTCCATG TTGGTCAGAC TGGTCTCGAA CTGCCGACCT
93841 CAGGTGATCC ACCCGCCTCG GCCTCCCAAA GTGCTGGGAT TACAGGTATG AGCCACTGGG
93901 CCCGGCCACA TTTCTAAATT CTTTATAAGT ATAAATTCAT TCAATCTTCA CCAAAACTCA

Figure 8 (Page 29 of 73)

```
93961  ATGAAGTGTG AGTACTATTA TTATCATTGT TTTACAGATC AAAACAAGTA ATACAGTCAC
94021  TTACTGAGTT CTATACACCT GGTAATTTTT TTGTTTCGTT GTTCTATCAA TTATTGGGGA
94081  AGGGGTGTTG AAATCTCTAC CTTTAAATCA TGTATGTGTC TATTTCTCCT TTCGGTTCTA
94141  TCAGGTTTTG CTACACATAT TTTGCAGTTC TGTTATTTGG TGCATATACA TTTAGAATTG
94201  CTTGTTTTTC GTATTGGATT GACCCTGTTA TCATTATGTA ATATCCCTGT CTGTTCCTAG
94261  TAATTTTCTT TGCTCTGAAA TATACTTATC TGATATATCA TCCAAAAGAC CACCAGGATG
94321  GCTAAAGAGT AGAAAGGAGA GATTTACTGG CAATACTAAT TTGCAAGCCA GGAAGAGATG
94381  GTCCCAGAAC CTGCCAAAAT TACTCTCTCT TTGGGGAGAA GGAGCAGGTT GGTTATTTTT
94441  ATGCCTCATA GGCTATATAT TACACAATAG AGTCATACAT ATTTAGCACG TTTGGGGGGA
94501  CAGCTATATA TATTATGAGG GGTGCCAAGT GCATTCACAA TGGATAAACA CGTGTAATAT
94561  ACCTCCCATG TTCACTTCGA GGTTAAATTT TGGTTAAAAT GAGGTAGAAT TTAGGTCTTT
94621  ACATCACAAG GTGAACTATA GGAACAAAGT TTACGTGCTG CCTCTAGCAG CTGGCTGAAA
94681  ATGGCTTAAG GTCTACAATT ACGTGTAAGA ATAGAATGTG TGTCAAGGCG GTCCTCTGTC
94741  CAATCAGAGT TGTAGTGGAC TGGACTGTAA ATCAGAGTTA GGAGGGCTTC TGATAGCTCC
94801  TATAGTTAAG GAATTTAGCA AGTGTGAGTT TTTTGGTAGT CTTTGGAATT TAGGAATTTG
94861  CCATGCCAGC CAAGCCATGA ATGCTCTACC AGTAGGTAAC TTTGTTTGCT TAATCTTAGA
94921  GTCTGTCTTA GTTGGTATAG GGGCATCTAT TTTGGTCTTT CAGATCCCAG ATATTATTAA
94981  TACAGATACT CTTGCAGTTT TGGGCTGATG TTTATATGGC TTATCTTTTT TGCAGCCTTT
95041  AATTTCAACC TGCGTTATGT TTATATTTGA AGTGAGATTC TTGCAGACAG TGTACAGTTG
95101  TTGTTTTTTT TTTTTTGAGA TGGAATTTCA CTCTTGTTGT CCAGGCTGGG GTGCAGTGGC
95161  ACAGTCTCAG CTCACTGCAA CCTCCGCCTC CTGGGTTCAA GGGATTCTCC TGCCTCAGCC
95221  TCTTGAGCAG CTGGGATTGC AGCCATGCGC CACCACACCC GGCTAATTTT TGTATTTTTA
95281  GTAGAGACAG GATTCACCAT GTTGCCCAGG CTGGTCTCGA ACTCCTGACC TCAAGTGATC
95341  CGCCAGCCTC GGCCTACCAA AGTGCTGGGA TTACAGGTGT GAGACCTCGC GCCCAGCCAA
95401  ACTGTTTTTT TATGGGTGTA TTTATACCAC ACACATTTAA TGCAATTATT GATATCTTAG
95461  GGCTTAAGTT CATGAAGGGT AGTGTGGGAA CCATAGTCTC TTGGCCCACT AAATGTTTGC
95521  CAGAAATCAC TGACAAGGCA GATTGATTAA TAGGTGAAAA GGCATTTTAC CTATTGTTTA
95581  ACGTGTCTAT GTGGGAGCAT TCAGAATTAA TTACCTAACT TCCCAATGAG TTATAGATGC
95641  TTATATACCA TTTTTAGATC ACAGAAAGAA TTGGGGCTTA GATTCTGGTA AAACAGGTTA
95701  TGGGAGGCAA AAGAGGTTTG GCTTGCAAAG GTGGCCTTGT TAGGTAGGTG AAGCCTCCCT
95761  CAGAAAGAAC AGATGGTAAA TGTTTCTTTT ATGATTTTTA AGTGTCAGAC TCTCAGTCTC
95821  TCCTGGATCT GGGGAAAGGT ATAGAAAGGT GAGGAGGCAT GGCTGCATTA ATGGAGATTC
95881  TCTACAGATG TAAAATTTTT CCCATTTAAG GCAGCTTTGC AAGCCCATTT CTGCCTGCTG
95941  GCCAAGCAGC AGCCATTTCA AAATATGTCA AAGAAATATA TTTTGGGGTA AAATATTTTG
96001  ATTTCCTTTA GACTGGTGGC CTTATAAGAA AAGGAAGAGA CACCTGAGCT GACACACATA
96061  CCCTTGCTCT CTCAACATGT TATGATGCAG TAAGAAGGCC CTCACCAGAT ACTAATTCCA
96121  TGCCCTTAGC TTCCCAGGTT CTAGAACAGT AGGAAATAAA TTTCTTTTCT TTAAAAGTTA
96181  GCCAGTCTGT GGTATTCTGT TATAGTATCA CAAAATGGAC TAAGTAACTA TATTATGATC
96241  ATCTTACATG ACTGATCCCT CCTACATCAT ACACATACAC AGGCCACATT TGGAACATTG
96301  TTAGAGGTTC CTCTGCCCAG TACAAATGTA CTACAAATTA TATATGTATT TTTAAATTTT
96361  TGAGTATCTT CAATAGTATA TTTTCGTTAA CTTTTGTAGT CAAAATGTCA TTATAACATG
96421  TATTCAATAT GCATAATTAT TAGTCAGATG TTTTACATTC TTTCTTCATA CTAAGTGATA
96481  TGGTTTGGAT ATTTGTCCCC TCTAAATCTC ATGTTGAAAT GTAATCTCCA ATGTTGGAAG
96541  TGAAGCCTGG TGAAAGGTTT TTGGATCGTG AGGGTGAACC CCTCATGAAG CGCACTCTTC
96601  AGGGTAATCA ATGGGTTCTC ACTTTGAGTT CACAAGAGAT CTGGTTCTTT AAAAGAGTGT
96661  GACACCTCCC CCATCTCTCT CGCTCAGCTC TCACCATATG ATATGCCTAC TCCCTCTTCA
96721  CCTTCCACCA TGATTGGAAG TTTCCTGAGG ACTTGCCAGT AGCAGATGCC TGCACCACAC
96781  CTCCTGTACA GCCTGCACAA CCGTGAGCCA AAAAAAATTA CTTTTCTTTA TAAATTAGTC
96841  AGTTTCAGGG ATTCCCTTAT AGTAATGCAA GAACGAACTA ACACACTAAG TCTATTTCAT
96901  ATTTACAGAA TAGCTCAATC TGAAGTACCC TTTTTCAACT TCACAGTAGC TACTTGTAGC
96961  TAGTGGGCAC TGATTTGGAG CGTGTTCAAG GGTGAATTGT ATTATGCAAT TAACAGATTT
97021  TTTTTATTGT TTTCGCAAAC CACGAGGCAT AGATTGTCTT ACTTTCTCTG CTCCTGGTGT
97081  TGGAGTTGTT ATTGGGAAAC AACTTATTTT CCTCTTATAT TTATATGGAA TAAATAACCC
97141  CCAATATTTC CCTCCCCAAT ATCTGCCTTT TGTATGTTTT TTGAAGGCAA GTGCCTAGAA
```

Figure 8 (Page 30 of 73)

```
 97201  TTTACTGTTT TTGAAGCACT TACTGAAAGG ATTGCCATCA AGTTGTTTTG CTAATAGTAC
 97261  ATGCCAGGCG CTTGTTGGTT TGCTTAATTC AAGGTAACTT GGATGAGAAG AAGAGTTTTT
 97321  CTCATCCATG GCTCAGTGGA GTATAGATTA CTGATATTGT GACTGGATGT ACTCCTGCTT
 97381  TCTAGTCTGA GTTTTTGAAG CTACCCTTAA TCTTGGTTTC AATTTTATCT AGCCCTGTAC
 97441  ATATCCAAGG CTCTTTCCAA AATGGTCTAC GATTTGTTTA GGAAGTTAGA ATAGCTGTAC
 97501  TTTCTGAACC ACGGTTCCTG ACATTTTCTG GACTTCAAAC ACATCCAGCA TTTTATCGAA
 97561  GTATTTATCC TTCCTACTTG GCTGGCTTCT TCCTTGCCTT CAGGTCTGAA TTCAAATGAC
 97621  ATTCTCCTGA TGAAACTTTC CATCCTTATT TCTATTCTTT TTTCTTATCC CCTTTCTTTA
 97681  TTTTTCTCCA CAGCACTCAT CACTTATCTC TACATTTTCA TTATGTATTT ACCTTATTGT
 97741  GCACCTCCCA CTACAAGACA AGTAGCACCG TAAGGAAACA GGTTGTCTGC TTTTTCACTG
 97801  CTATGCTCCC TGCACCTAGA ACACTCTCTG GCACTTAGCA GGTTTTCAGT AAATATATGC
 97861  TGAACTAATA ATGCTGGATA TACATCTCCC TCATGAACTC TCTAAATCCT TCTAATTTAC
 97921  ATTGATCAAT CTTCTTTTCC ATGTGCTTTT GTATGATTTA TTGCTCAAAA TCTTTATTTT
 97981  ATATGCAGAA CGTGCACTGC TATTTAATCT TCATGTACGT AAGTCCTCCC TTCTCTGAGT
 98041  ATAATCTCTT CAGGGCACTA TCTGAGATAA CTTTTTAACA TCTCCATCAT GAATCTTGTA
 98101  CCTTTTCAAA GAAAATGAGC CAGTGATTAC TGATGTTTAC GGCTATTGTT GAGGGTGAAG
 98161  ATCATTATAA TTTTGAAAAG GGAAGTTGAA TATTGTGAAG GGAAAGATAA CACTAGAGTC
 98221  AGAAGACTTG GGAGAAGGCA AAAAACAAAC TAAAAATGAG CACTTTTAGT CTCCTGACAG
 98281  TTTCTCTGAA TCAAATCCAT AGTTCTGTGA CAGCGTTGGC TTAGAAGCAG ATTTTTTTTT
 98341  TTTTTTTTTT TGAAATGGAG TTTCGCTCTT GCCCAGGCTG GAGTGCAGTG GCACGATCTC
 98401  GGCTCACTGC AACCTCTGTC TCCAGGGTTC AAGCGATTCT CCTGCTTCAG CCTATGGAGT
 98461  AGCTGGGATT ACAGGCTCCC ACAACCACGC CCAGCTAATT TTTTGTATTT TTAGTGAAGA
 98521  CTGGGGTTTC ACCATGTTGG CCAGGCTGGT TACGAACTCC TGTTCTCAAG TGATCTGCCC
 98581  GCCTTGGCCT CCCAAAGTGT TGGGATTACA GGCATCAGCC ACCGTGCCCA GCCAGGAGCA
 98641  GATTTTTTTA CACTCATGTT TCTTTTTCCT TCTGTCATCC TGTTTCAGTA TAAGCAGACC
 98701  ACAGATAGAA GTAGTAGATA CCTCAGAAAT TCCTGGAATA ATTAATCCAC GTTCATCTGT
 98761  ACTCCATCTG CTCCTATCTC ATGGAATATA AAAGGAAAAA CACCAAGATT TCCCTAGGCA
 98821  ATCTGTCTTG ATTTTAGGTT CCTCAACAGG AGAGCCAGAC AATGGCTGTA ATAATATTGT
 98881  CCCGGCCAAG GAAAAACTTC CCCTTTGCCC TCCCAAGGTT TATGGAAAAT TACTGGCAAA
 98941  ACACAGATTA ACTGGAGAAA AGGCATATAT ATTTATTTCA TCACAATTTT ACAGGAGATT
 99001  TTAGAATTAA GACTGAAAGA TACAGGGGAA ATTGCCCATT TTTATGCTTA GGTTCAACAA
 99061  GATAAACAGC TGTATAGGGT ACGATCTAAT GCTAACAGAC TGAGTGGGGA AGCCCCGCAA
 99121  GGCTTGTCTG TCAAGATTCT TCTTGACCTC TCAGTGCAGC ATTTCTTCCT TCTGGTTATA
 99181  GGACAAGACT CTCTTTTAGA ATGGGGGGTC TTATGACCTA CAGGCAAACA AGGTAGGTTA
 99241  GAGTAATACT TTTAGGTTTT ATGGCTGGTT CTAGGGAAAA GGAGTTCTGG TTTGTATGGC
 99301  CTACCTTGAG GAGGAATTCT GGTTTCTATG GCTAGACTTT GGGGAGAATG GGACTTACAG
 99361  ACAGGAAGGC AGAAGGTGGT CAGTGAAACA CTTTTATAAT CATAATCCCA TTTTGAGTAT
 99421  TTCTGTGTTA TGGAATGTTT GTTCTCTCAT TTCCTGAAAG ATTCCAGAGA CTCCTCATTC
 99481  AGTGTTGTGA AAAAGTTCAG GAAATGCAAC TCAAAAATGT GCCACTTTGT TACGCTGATT
 99541  TCTTTGAACT GAGGGCACCT AGGAAACAGT AAATTCAAGG AAGGGCTTTC GCTGAACTCT
 99601  AATCAAAAAT TTGAAAATTA AAAAAAAATT CAAAAAGGAA TTTAGTTGTT AAGATTCACT
 99661  TCCCTGGGGA ATCTCATCAA CCAGAGAAGA TTAACTGTAT CACAGGAGAG GAGACTGGTG
 99721  GTTAACACCA TCTAAACAGA CTTTGTCACA GCTGTCACCT ATTCTTTGAA ACACCCATTT
 99781  ATTTTTCTCC AAAATCATAT ACTCTCCCCT AAGTTGCCTA CATCCCCCTT CTTTCTCCCT
 99841  TATGAATCAA GAGAGCTTAT AAGCTTCTAC AGTTCACTGG GATTTGGGGT ATTCGCTTTT
 99901  CTTCCCTCCC ACTCCCCCTC CCCTTTTTTT GTCTTTGAGA CACAGTCTTC TGGCTCTGTC
 99961  GCCCACGCTG GAGTGTGGTG GCTCTATGTG AACTCACTGC AACCTCCTCC TCTCGGGTTC
100021  AAGCGATCCT CCCACCTCAG CTTCTCGAGT AACTGGAACT ACAGGCGTGC ACTACCAAGC
100081  CCGGCTTTTT TTTTTCTTTT TCTCCCCCGT TTCTTTTTTG GTTATTTTAC TGGAGACAGG
100141  GTTTCTCCAT GTTGTCCACG CTGGTCTCGA ACGCCTGACC CGCCGTCCTC GGCCTCCCAA
100201  AGTGCTGGTA TTACGGGCAT GAGCCACTGC GCCCGATTTG AAGGACCTCT TAAATATCTA
100261  TTTAGAAATT GGTCGGAGTC CACTCCTTTC CAAAAACATG AGTCACAATC CGGGAAAAGC
100321  ACGAGCGGCT GAAAGTCAAA ATAACCAGAA CAAAACCTCC ACTCATGCTT AAAAAAGGTA
100381  TTTTGACAAA ATCCTAATTC GGCCAATTAT TATTAGTATT CAAGTCGAAG GCTCGTCAAG
```

Figure 8 (Page 31 of 73)

```
100441  CCAGACTGGG GATTGGGTCA AACATAAACC TTACACCAGA CGGAAGGATT ACATGCAAAT
100501  GAAGGATGCA GATTCTGATT TCCCATTGGG TATTTGACAT TAGCCAATGG GAGAATTCCT
100561  CACAGCCTAC CTCCAGTCAG TATAAATACT TCTCTGCCTT GCGTTCTAAT GTAGTTTCAT
100621  TACATTTTCT TGTGGCGATT TTCCCTTATC AGAAGTAGTT ATGTCTGGTC GCGGCAAACA
100681  AGGCGGTAAA GCTCGCGCCA AGGCTAAGAC TCGGTCTTCT CGTGCAGGTT TGCAGTTTCC
100741  TGTGGGCCGA GTGCACCGCC TGCTCCGCAA AGGCAACTAC TCCGAGCGCG TCGGGGCTGG
100801  CGCGCCGGTG TATCTCGCGG CGGTGCTTGA GTACCTGACC GCCGAGATCC TGGAGCTGGC
100861  GGGCAATGCG GCCCGCGACA ACAAGAAGAC CCGCATCATC CCGCGCCACC TGCAATTGGC
100921  CATCCGCAAT GACGAGGAGC TTAATAAACT CTTGGGGCGT GTGACCATCG CGCAGGGTGG
100981  CGTTTTGCCT AATATTCAGG CGGTGCTGCT GCCTAAGAAA ACTGAGAGCC ATCATAAGGC
101041  CAAGGGAAAG TGAAGAGTTA ACGCTTCATG CACTGCTGTT TTTCTGTCAG CAGACAAAAT
101101  CAGCCTAACA GCAAAGGCTC TTTTCAGAGC CACCTACGAC TTCCATTAAA TGAGCTGTTG
101161  TGCTTTGGAT TATGCCGCCC ATAAAGATGT TTTTGAGGTG TTTTTAATGG CTTTGAGTGT
101221  GGCACTTTTA GTAATTTGTC CTGCAGAAAT TAGATCCATA GAAACCTCAG GAATTCTAGG
101281  TATGTGGGAG AAGTGCCATG CAGCACAAAA CATGTTTACA GGGGTGATTC GCGTTAAGTT
101341  TCACACACAG CAGTTACTAC ATTTTAGAGG AAGGAAATTA TACCCATGAG TGCATTCCTA
101401  ACTATCTTGA ATGGAAGTGT TAAAACCCGC ATGCCCCACA CAAGTTTGAA TATGTCATAC
101461  CATTTGCTGT AGCAATTAAT GGCATACACA ATTGAGAGCA CACACATTAC CACTGAACAT
101521  TTGAGTATGT ATTTCCCAAA ATGAGCTTTT TTCCAGTTTG GGGATGTTTT GCTTTGTTTT
101581  GGGGTGGAGT CTCCCTCTCG CCCAAGCTGC AGTGCAGCGG CGTGATAACA GCTCACTGTA
101641  ACCTCGAACT CGGGCTCAAG CGATCCTCTT GACAGCCTTC TGAGTAGCTG GGATTACAGG
101701  CGAGAGCCGC CACGCCCGGC TAAGAGCATT TTTCTAATTG CCCACACTTC TTATGCGACA
101761  CCCAGAAAAA TACAATTTTA AATAAAGCGC ATATGCAAAT TTCCCTAATC GTCTCCAATA
101821  TTCTCTGATT TCTTTTTTAT ATTTTAACTA GAAACAATTG GAGGTTTCCG CGTTGCTTTG
101881  TGTGGTTGTA AATTTTAAGA CTTCAGGAAA CTTTTCCAGT ACAAGACTTG TCCACAGTGG
101941  ATATAGCAGC TAAGGGGTTA ACAAAATGAC GTCAGAGTAG CTACGGTAAT GGGCAGGAGC
102001  CTCTCTTAAT CTGCAACCAG GCACAGAGAT GGACCAATCC AAGAAGGGCG CGGGGATTTT
102061  TGAATTTTCT TGGGTCCAAT AGTTGGTGGT CTGACTCTAT AAAAGAAGAG TAGCTCTTTC
102121  CTTTCCTCCA CAGACGTCTC TGCAGGCAAG CTTTTCTGTG GTTTTGCCAT GGCTCGTACT
102181  AAACAGACAG CTCGGAAATC CACCGGCGGT AAAGCGCCAC GCAAGCAGCT GGCTACCAAG
102241  GCTGCTCGCA AGAGCGCGCC GGCTACCGGC GGCGTGAAAA AGCCTCACCG TTACCGCCCG
102301  GGCACTGTGG CTCTGCGCGA GATCCGCCGC TACCAAAAGT CGACCGAGTT GCTGATTCGG
102361  AAGCTGCCGT TCCAGCGCCT GGTGCGAGAA ATCGCCCAAG ACTTCAAGAC CGATCTTCGC
102421  TTCCAGAGCT CTGCGGTGAT GGCGCTGCAG GAGGCTTGTG AGGCCTACTT GGTAGGGCTC
102481  TTTGAGGACA CAAACCTTTG CGCCATCCAT GCTAAGCGAG TGACTATTAT GCCCAAAGAC
102541  ATCCAGCTCG CTCGCCGCAT TCGCGGAGAA AGAGCGTAAA TGTAAAGTCA CTTTTTCATC
102601  AGTCTTAAAA CCCAAAGGCT CTTTTCAGAG CCACCCACTT ATTCCAACGA AAGTAGCTGT
102661  GATAATTTTT TGTTGTCTTA ACAGAACAAA TTTCTAAGGA CCCCCCCGGA AAGCATTAGA
102721  CTATGGTCTT AAAGTTGATT AACAGAAATA ACGGTTTGGT CAGTCTTGCA GTGTAGGTTA
102781  TTTCTGACCT TATTAAGGTG CTATTTGGAG AGAAGCTGTG TAAGTCCACT ATCATTCAGG
102841  CCTCTAGCTT GCTATGATTA GCATTTGTTT AAACAACTTT GTAAGAGTAA GGGAAAAATC
102901  TGGTAAGTAG TTAACTGGCG CTTACTAGGC ATTTTTGCAA AGCTTTGAAA AGATTAGAAA
102961  ATTGTGTCTT GCGAGTTCCA GTGTCTTCCT CAAAATGCTT AGGAAGATTT TCTCAGCTCA
103021  ATACATAGTC CCCTAGGTTT TCTCATATAT TATATATATA TATATATATA TATATACTGT
103081  TAAATTCATT TGGCTGTTAA CATTAACCTG AAATTTATTC TGGTGCAAAA TGTGAGGCAG
103141  GGATCTAACT GGCTCTCATT TTATCCATAG CTAGCTACCC ACTTTAAATC TGTCAGTCTG
103201  TCGACCAAGC ATAATTTAAT CCCTTATATA TGAATTTTTA TATGTGTGGC TTTGCTTGTA
103261  AATAGTCTAT CTGGTTGCAT TGCTTTGTCT CCTCTAGGAC TATGCACCAT GACATGCCAC
103321  ATTCTTTTTT TCAGTACTTC TTGCCTGTAG TTATTAAAAT CTAGAATTTA CAAGTTTTAA
103381  CCATTTTCTT TCTGTTGATC TTGCTTTTCG GTTTTGGAGG TTGGGGATTG AGTACTGGAA
103441  GAAAATTTAG AGGGATGGGA ATACTGTACG CAAACAAAAG TAATATTTAC TTTAAAATTT
103501  TTATATTTTG TATTTTTTTA TCATATAGCT TTTACATCAC ATTTTACAGA CTAACTTTAG
103561  AACAACCACA GAATGTCCAA CATTAAAACT ACTAATTCCA AAGACCTTGC CTCACATTCT
103621  TTTTTACAAT AAATATTTTT TACACCTAAC ATTCTTTCTT GGCCTACATC TAGAATGTAA
```

Figure 8 (Page 32 of 73)

```
103681  ACTGATGTAC CATACTAAAA TCGCCTGACC AACTGTCAAC AACAACAAAT CACACACACA
103741  AAAGATTAAA TTTGAATTGC ATCGTTTACT TAAATTCATT TGTGTTCCAG CTTTTAATAA
103801  GGCAGTTTTT GGTTTATAAA GTAATATTTG CATTTTAAAA ATTATGAAAA TGAATATGTC
103861  AGTTTGTTTT ATGATTCGTT TTTCTTGACT CTTATACAAG CGACTCTAAC TGGCATAGAC
103921  ATTTGTTATC CACAGACAGT ATAGATATGT TAGAGATGCC AATGGACTTG GTCTATGCCA
103981  AGGTGACTAC TCACAAGCTC TGGGCCCAGC TGAAGGTCAA GTATTTTTTT TCCAGTTATA
104041  GATGTGCTGG ATCTGATGTA TAGCGCTTGA CTTTTTATAT TTTCTTTATC TGTAGGAAAC
104101  AAATGTGTTG GAGGTACTGG GTCTGACGAA TAGCATAAAA GAATAAAGTT ACATTACTGT
104161  CTGAGGATCA GATGGACAGG GGGTGGTAGC TCAGTCCAGC TATTTTCCAC TCCCTCACTT
104221  ACATTCTTTG CCCCCTCCTC AACAGAACAA GGATTCTGCT GTAACTCTTC ATTGACAGTT
104281  GATATTTAAA AATTAACGAA TGGATGAAAT TCTCATTTGT GAAAGAAAAT TTATTGAGCA
104341  TTTTGTATTT GTGAGTAGTG CAAACATTTT AATATTATAT TAAGAATCTA TTGTTTTGTA
104401  TTAGAGGAGT AATTAAGGAG AGATTGGAGA CAAAAAGGGG GTGTTGTTTG CAGAATATAC
104461  CATCCAAAAA TAGACCACTG TGGGATCAGG ATTCTTTTGA GCTAAAGGCA CTTCAAAAAC
104521  AGCATTCAAG AAGGGAATTC TTCTAAACTT TTCTTTCTGA AAACAGGAGA TAAAAGTTCC
104581  AATGTGAAAA ATGCTCTGCT TGTACCAGGT GAAAAGACAT ATTCTTCAGC CCAGAGGCAT
104641  AGATGAGATA ATTCTGCACA AACACAGCAG GGAGTCATAG CCGAGAGACT TCTATACACA
104701  AACAAACCTT GTTAAAATAA TCATATATTC CTTTAATCTC CTCATATGGT TTACTTTCCC
104761  ACAATTGCCT CTCTTTAACT TAATGTGAAA GCATTTAGCT TTTGCCATTT CTTTGGGGCT
104821  TCACTTTTTT ATGAGGGTTC TCCTGTCCCA TAAAATTTAC ATTAAATACA TTTGTATGCT
104881  TTCATTCTGC TAATCTGTTT TATGGCAAAT GAATTATCAG GTCCAGCTGG AGACCCTAAC
104941  AGAGTAGAGG TAAAATTTTG CCTCCCTACA AGATAGAGAT TGTGTGCATT AAATGTTGTT
105001  TGTTCCCAGT TGTTCAGTTT GTCAGGCCTC TGAGCCGAAG CTAAGCCATC ATATCCCCTG
105061  TGAACTGCAC GTATGCCTCT AGATGGCCTG AAGTAACTGA AGAAACACAA AAGAAGTGAA
105121  AATGCCCTGT TCCTGCCTTA ACTGATGACA TTACCTTGTG AAATTCCTTC TCCTGGCTCA
105181  TCCTGACTCA AAAGCTCCCC CACTGAGCAC CTTGTGACCC CCACCCCTGC CAGCCAGAGA
105241  ACAACCCCCT TTGACTGTAA TTTTCCACTA TCTACCCAAA TCTTATAAAA CGGACCCACC
105301  CCATCTCCCT TCGCTGACTC TTTTCGGACT CAGCCCGCCT GCACCCAGGT AGAATAAACA
105361  GCCTTGTTGC TCACACAAAC CCTGTTTGAT GGTCTCTTCA CACGGACGCG CCTGAAACAG
105421  TTTAACAGGG TTTTTCCTGC CCAGTCACAA CAAAGTGATG TTATGCTGCA GGCTGAAGTT
105481  TACAGCTAAT GCTGTTGAAG TCTAAAATCA GTTTTGGTTT GTTAGATTTG GGTGAGATGG
105541  CTAAGATTCT CAGAGAAAGA AGTCAAGTTT GGGGTGCATT TTTCAGACTT AAAAATTTAG
105601  CAGTAGCCCT TGCAGTTTTT CCAATAGAAG TGATTTAAGA ATGTTTTCAG GAAATTTAAA
105661  ACAACAGTGA GAAGCGTGTA TGGAGAGTTG AACTACACTC CAGACTTGGC TATAGGAAAG
105721  CACGAATGCT GCTATTGTAT TGCACCTTGG AAAAGAGAAC AAAGGAATAT TTTCGGACAA
105781  TTTTAACATG TCACATATGA AAAGCTAAAC GGAATCTGTC AACACCTTGT ACGTTATTAC
105841  AGGCTGTGAT TTTAAAAAAA CAATCCTTAC TAATACATAC ATAGTTGCTG CTAGCAATAT
105901  AGTGTTGGGA GTAAAAACAC GAAAATGAGA GTTCAGGACA ATATCCCAAC TCTGAGCAGA
105961  TTTTTTTAAG TAGTAACATC TAAAATTAAA CCATATTATG TAATATTTAT TTCTTTTCCA
106021  CAGTCTCTTC TCATGCCTCG TTCACATTAG CTAATTAAAA GTCCCCTGAG TATCATCATA
106081  ACCCGATTTA CAGATGAAGG CACGGTTGCA ATGAGCTATC ACCCTCTTCT GAATGAGACA
106141  GTACAGTGTG AAGGATAGCA AAACTCCACT CCCATCCTCT TAGGGCTCTG GCTGGACCAG
106201  CAAATTAAAT TAATGTAAAA TGGATTAACA GGAGAAAGGT ATATGCATTT ATTTAACACA
106261  GGTTTTACGT GACACAGGTG CTCTCATAAG GTAATGAAAG CCCAAAAAAA GCAGTTAGCT
106321  ACTTATATAA TGAATTGGAC AATTAGTAAA ATGTAAAAAT GCGCTAAAGC AAAGGGATTT
106381  AGGCTAGAAT ATATAACTGT GTAGAGAAGC GCCCAGCAAG GGCTAGTGCA AGGTTTGTAC
106441  AGAATTCTCT TGGCCTCAGC CTCCTATCCT TGAGAAGAAT GTTGCTTTTT TTAAACTACA
106501  GTGAGAACAT CTTTCATATG AGAATTTCAC CTACTGCTTC TAAGAAACAG GTCAGCTTTC
106561  AAGAAAACAT AAGGCCAGAG TGATCTTTTC ACGCCTGCTC TTTTAAGTAC CTTTGAATAG
106621  TCAATATGTC TTCAAGCACT TGAAAGACTT AAAAAGTTTA CCACTCCGGC ATATTAGTGA
106681  AAGCCCTTAA TATAAGCCCT TATTAAAATT CTCAGTCGAG GGTATAAATT CAGATTCAAA
106741  TAGTAGTGTC GTAAACGGGA GGGAAAAACT AAAGGGATTA AAAAGTGAAA CTATTGTGTT
106801  CTCCCTCGCA GTCCTTAGGT CACTGCCCCT CGAGGGGCGG AGCAAAAAGT GAGGCAGCAA
106861  CGCCTCCTTA TCCTCGCTCC CGCTTTCAGT TCTCAATAAG GTCCGATGTT CGTGTATAAA
```

Figure 8 (Page 33 of 73)

```
106921  TGCTCGTGGC TTGCTTTCTT TTCGCGTACC TGGTTTTTGT TGTCAGCTGG TTAGACATGT
106981  CTGGTCGCGG CAAAGGCGGT AAAGGTTTGG GTAAGGGAGG TGCCAAGCGT CACCGAAAAG
107041  TGCTGCGGGA TAACATCCAA GGCATCACCA AACCGGCCAT TCGGCGCCTT GCTAGGCGTG
107101  GTGGGGTTAA GCGAATTTCC GGTTTGATTT ATGAGGAGAC TCGTGGCGTT CTCAAGGTGT
107161  TTCTGGAGAA CGTGATCCGG GACGCCGTGA CCTACACGGA GCACGCCAAG CGCAAGACTG
107221  TCACTGCCAT GGATGTGGTT TACGCGCTCA AGCGTCAAGG ACGCACTCTG TACGGCTTCG
107281  GCGGTTAATC TTTTCGTCAG TTTTCTTCCA ATGGCCCTTT TCAGGGCCGC CCACTCCCTC
107341  TCAGAAAGAG CTGTGATTGT ATTCTTTCGG ATGGTAACAT CTCAATGGCT TTACTCGGCT
107401  ATTCTGCCTA GTATGTAGAA CTATTATAAA CCAGTTGGGA GAGACCAGGT TGTTTGGTCT
107461  GAGTGGCTGC TAAAGCAGAA ATCAGCTAAG TAAACGAGGT CTCCGAGATA AGTGAGCTAT
107521  AAACTTCAAT GCTATAGTTT TGACATGTCA AGCAACTTAA CGTGCAGCGC GAGTCCGATA
107581  AATGAGTAGC TCAGCTTTTT AGTTTTAAAA ACGAGTTGTG CGTTATTTGT ACGAGAGCCT
107641  AAGATGCTAG CTGCCTGGAA CTGAGTAGGT GGATTAAAAT GGGTGTCAGG TCTGTTTTCC
107701  CAGGCGTATC TGACTTAACG TCAGCAAAAG CTGTACTTTT AGCTTCCCTG GTAACACCTG
107761  CCGTCCTTAA CCGCCCCCTG CCGGTAGCGC CAGAAGCCTT TACTTCCATT TCTAGTTGAG
107821  CTTGGCGTCC TGCTGAGTGA CGTCACCTCC CCCTTCTCTG GAGTAGGACT GGCGGTTAAA
107881  GCTGCTTTGC TATTTTCAGT CCTCAGGCTG GAGGCTCCCC TAAGCAGGCT GCCTACGCAG
107941  TTCGTAAATT CCCACTTAGT AGACTAAGGG AGTCTGTTTT ATAAATAAGG ACTCAAATTT
108001  CTTCTGACTC CGAGGTCCGT GGCAGCAGCT ATAAGATGGA AGCCCCCTCT GATGTAAGAT
108061  TCTCAGATGA CTTGCATCTT CACTGTACCT GTCAACCCAA TAGTCTTCTA TTCCTGCCTT
108121  AAATTGTAAA TTCCAAAACT GATTTAATTG TGAAAGTTTC AAACTGTACG ACCTAGGAAG
108181  TGTCAAAGTT AGGTGACCAG ATTTTTAGAA GTCAGCCAAA TATTCAGCAT CTTTGATTTA
108241  GTAACAAATA TATTGATGGC TACTTCAGCA AAAAAAATCA ACTTTGTTTT CTGGTTACTT
108301  TGCTAACAAG CTTCTCCTGA CAGGAGGATA TAGTGAATAG GCAGTTGAAT AAGTGAGTTC
108361  GGGTGAGAGG TCTGAGCTGG AGATAAAAAT GTGTGAGTCA TCAGCAGATA AATAAATGCT
108421  GAGACCAGAT GAGATGGCTA AAAACTGAAA CATAATGTAG TGCAGCATTG TTTGTAATAG
108481  TAAATGAGTG GCAACTGTAA AGTTTTCATC AGAAAGGACT AGAGTGATCT ATACATCCAT
108541  AAAATAGAGT ATTTCTCTAC ACAGCCCTAC TAAAGAATGA GAAAGCTGTA CTCCACTACA
108601  TACTCTGGTG TACTCTGGCT CAGTTCTTGG ACTCCTCTTT TCTTGGCTAA CTCAACTGGC
108661  CTCACCACTT ACATGCTCTG TGCTCTGTCA AATAGTTTGT TCAACAGAAC ACCACGGCCT
108721  AGCTGTAAGT GCCACGTTAA CTTCTAGCAA TGCCAAAGCC TGTGATAGTG GCAGCTTCGG
108781  GCTGTTTCTC ATTCCCGGGA TGCCTAACCA CCTCTCCAAA TTCTATCAGT TTGCTTCCAC
108841  CCACTTCAAG CTTCAGAACG AAACATAGAG CTTAAGAAAT ATAGGCCCGG CAAGGTGGCT
108901  CACGCCTGTA ATCCCGGCAC TTTGGAAAGC TGAGCCTGGT GGATCACCTG GGGTCAGGGG
108961  TTCGAGACCA GCCTGGCCAA TATTGTGAAA CCCCGTCTCT ACTAAAAAAA AAAAAAAAAT
109021  TAGCTGGGCA TGGTTGCGGG CGACTGTAAT CCAAGCTACT CGGGAGGGTG AGACAGGAGA
109081  ATAGCTTGAA CTCGGGAGGC AGAAGTTGCA GTGAGTTGAG ATCGCGCTAT TACACTTAGG
109141  CCTGGGAGAC AAGAGTGAAA CTGTGTCTCT AAATAAGTGT TTGCAATTAT AAACCATCTC
109201  CCTGACCTTA AATCTCTAGA CTCATATACA ACTGCATATT TGATGTATCT AATTGAATAA
109261  TGGGCATCTC GAACTTGTCC AAAATATGTT TATACGTAAA CACCAAGTCT GTTCTTCCTC
109321  TGATATTTGT CATGTCAATC AATAGAACTC CATTCTTCAA GCAGCTTGGG CCAGGAATTG
109381  TGCAATATTG TTTGTCCTGA GCTTCTTACA ACTTTCACCC AATGCAGTCA GCTCTGTTGA
109441  AAATCAATCA GAATACCTTT CATTGTTTTC TTTGCTGCTT CTCTAGGAGC AAGCTGCCAT
109501  GGCGGTTTGT CTGAATGACC ACAGTGACCC CAAACTGGTC TTTGTTTTCA CTTTTAATCC
109561  CCCTGTCATA CAGTTTTTTC TCTATCCAGC ATCAACAGTG ATCCTTTTTG AAGGTATTAT
109621  GTCCACTGTC TGCTGAAAAG ATTCCACTGG CTTTCCATCA CCTTCATAAT AAAAACCAGC
109681  ATCCTTATCA TAGCCTACAA GTAAGATGAC CAACCATTAC AGTTTGCCTG ACTCTCAGGG
109741  GTTTCTCAGG GTGTAAGACT TACAGTGCTG AAACTTAGAA AGTTCCAAGC AAACTAGGAT
109801  GAGCTGCTCA ACCTACTAGA TCTGTACTCT GGCTACCCTC TGACCTCATT CTCTTCGCAG
109861  TTCTTTCTCT TCACTGACCT TGCTGTTTCT GGAATGGACC AAGCATTTCC AGCATCAGCA
109921  CCTTTATATC TATTCTTTCT CCCTAGAAGG GTCTTGTCCT GGATATCTGA ATGGCTCTAG
109981  ATCTCATTTC ATTCAAGCCT CTCCTCAAAT ACCAACCTTA CGAAAGAGAC CTCCCATAAT
110041  CATCCCTTGT AAAATAAGCT TTTCTGCTCA TTTAGCATAT ATATATATAG TTGACTATCC
110101  TCAATAGCAT ATATATATAA CATTTCCCCA CCTAGAATTA TATATGTAAT AATATATTTA
```

Figure 8 (Page 34 of 73)

```
110161  ACAAAAAATA CATATAACTA GATATATTTT ATTTTGTGTT TGTTCTCTCT CCCCCAACTG
110221  GAATATATTT TTTGAAGGTA GGGACTTTGT TTTGTCCCAG AAGTATCCCT AGCACCTTGA
110281  ACAGGGCTGA CGTTTAACAG GTAGTTTATG GAGGTTTGTT GAATGAAAGG ATGTGTGAAT
110341  TTTCTATGTA AGTCTCCAGG CTCTCCACTA AGCCCACCAG AATGCTAACA CAATCAATTC
110401  CCCATCTCAT TCCTTGACCT GCCACTGCCT GAAGCAATCA GCGTGCAGTT TCTCTTTAGA
110461  AAATCTGGGG GATAGTCTAG GGGTTGCAAA TTAAGCAACA TTATCTTTGT TCTGAACAAG
110521  GACTGCATGA GTGTTAGGAC TGAAGAAGGC CCAAGGTGGT GGTGGGTATG CCTAAGATGA
110581  GTATGACATA TCAGCAATGC TATGAACATA GCAATGCTAT GAAAGGCCAG GCAAAACGTA
110641  ACAGGAGCTA GTCGTGGCTT ATTGTTACAA CGACTATACC TCCCATATGG GTAATCGATA
110701  TCCACACACC CCTCTACATT GACTCTGGAA TTCAGGAAAG GGAATTAAAA TTTTCTAACT
110761  TATGTACCCC AATGATTTCA ACAATATCTG GCATATGAGA TCAATAAATA TCTTTAAAAT
110821  ACCAACTAAG AAAGACATAA AATGACCCAC CCTCCATACC AGGCTCATTT TTGCTCCTCT
110881  GATTCCTGAA ACTATCCAGA ATGCAGCTAT GAATTCTCTC CATTGTCAGT TTTAAATTAA
110941  GCCAAGCTGG GTACTTGTGT AATTCCTCAA GAAATCCTGG ATGAAAACTG TCAGGTGGAA
111001  AACAGGACCT CAAAATAAAG AGACATCCAT CACTGAAGCT AACATCGTGA GGCTGAAATC
111061  AGTCCTATAA CAATGGTACC AAAAAGAGCA CAATGAGAGG CATTTGTGAA TATTTACTCA
111121  GATGAGAGTA AGATATTTCC CTATCAGCTA ACCTGAAGTT CACATCCCTT TTCCAGCTGA
111181  GTTCTGAAGC TAGATGTACT TAACTGGAAC ACATAACTGC ATCAGGAACA TCCTTTAAAA
111241  CTATGGCTAC CATGGCTTGA CTGGACAAAC CCCAGGCTTC CAGGTTTAGC ACAGGTGGCC
111301  CTTCACAGAC CAACATTGCC TATGCTACCA ACCTCATGTC CTACCACCCT GCTTGCATCA
111361  TTTCTCTCTC TGCATATATA AAAATATATG TGTATGTATA TAATCAGCTT TATTGATATT
111421  TAATGTACCA CAAAATTTGC CCACTTTAGG TACAGTTCAA TGAATTTTAC CGTGTTTTCT
111481  TAGTTGTACA ACCATCATCA CAATTTAATT TCGGAATATT TCTATCACCC AAATTTCCAT
111541  TTCTGCGTAA AGGGGGAAAA AAAAAGGTTA ACTGCTGAAG GCCGCGGTAA CACTGAAAAA
111601  GGTGCCTTTT CTCTCTAAAA CAGATTTTAA TCTCCCCTGA ATTTAGTGTC CTGGGTATTC
111661  CAGGAGTCTG AATAGGGTTT CAATTTTCAG GGTCTTTTTA ATAGAGTAAA ACTGTATTGG
111721  TGGCGATAAA TTTAGTATTG CTCTCAGTAC ATGATTGAGG GATACTTAAA TGTCTCTGTG
111781  ATTTTATTTC ATAATCGCTA AAAGATGGTT TTTTTTTTTC CTAAAACAGG GTTTTTGTTT
111841  TTTCTCAATA AGCTTCTTAG CTTCCCCTCC GGCTCCCTGG CTTGCCTCAG GAAATATTAG
111901  CTCATCAGTT CTGATTGGTT GACAGCTACG AATGGCCCTC ATTGATTGGG CAGCGCTTCT
111961  TTGTCCCTTG GAAACTAATA CAAATTTTTA ACACTACTTT TTTTCCACTC TTTCTTCAGA
112021  GTTGGAATAT CGTTGCTCCC CTACCCATAT GTAGTGAGTG GAGGGCAAAC TTGGAGTTCC
112081  CCTAATCTTT CCTTTTTAGG ATGTCAGCTC AGTATCATTC ATCTTAATTA CACATTGAGC
112141  TTCTTGACTT AATGGATACA GCTCTTCTTT TGTTTAGTTG GGCGGCCCTG AAAAGGGCCT
112201  TTGGTTCAGA AATGCAAGCT GTGGAGAAAT CAGCAACCTT AACCGCCAAA GCCATAAAGG
112261  GTGCGTCCCT GGCGCTTAAG CGCGTAGACC ACGTCCATGG CAGTGACTGT CTTGCGCTTG
112321  GCGTGCTCCG TATAGGTGAC AGCGTCACGG ATCACGTTCT CCAAAAACAC CTTGAGCACC
112381  CCGCGAGTCT CCTCGTAGAT CAGACCAGAG ATCCGCTTCA CACCGCCACG CCGGGCCAGA
112441  CGCCGGATGG CCGGCTTGGT GATGCCCTGG ATGTTGTCAC GCAACACCTT GCGGTGGCGC
112501  TTGGCACCCC CCTTACCCAA ACCCTTCCCG CCCTTACCAC GTCCAGACAT GACTTCCCAA
112561  GAAGTGAACC AAGAGCAAGT GAGAGAATAG GAAACCGATC TTTATATATC TACGTTACCC
112621  CTGCCCCCAC CTCCAGCGGA CACTGAGACT GAAAAGCGCG CAGGCGGGAA ATGTGACGCC
112681  TACAGTCCGC TCCTTTAACC CCTCCTCCAA GCCCCAGGAA ATGGCGGGAG CAGCGATTGG
112741  GGGAGGGTGG GGAGATGAGG GTGGGACCAA GCAGGCTTGA CCAATGGCCT TTATTTTCTT
112801  AACAGAGCTA CAGGCTTTGA GGAACTGGGT TAAGAATTAA ATGTAAACCC ATTCTGACTC
112861  CAGAATTATT TTAAGTCGAA CTTTTTTTTT AACCGAATCT CTCTGTCGCC CAGACTGGAG
112921  TACATTAGAG CCATCTCGAT TCACTGAAAC CTCTGCCTCT CAGGTTCAAG TGTTTCTCCT
112981  GCCTCAGCCT TCAGAGTGTA GCTGGGATTA CAAGCGCTCG CCGTCGCGCC CGGCGTGTTT
113041  TTGTATTTTT CGTAGAGACG GGATTCGGCC ATGTTGGCCA GGCTGATCCC GAACTCCTGA
113101  TTTCTGGTAA TCCGCCCGCC TCAGCCTCTC AAAGTGCTTG AATTACAGGC GTGAGTCACC
113161  GCGACCGGCC GAAATCGATT GGTTTTGAAG CCTTCAGTAG CATTAAAACG AAAAGTGCTC
113221  CCAATGCATT CCCTTTTGTC TTAAATTGGT TTCTTACAGC TACTTTACTT GAAAAGGTGG
113281  TGGCTCTGAA AAGAGCCTTT GCTTGGACCG TCAGAGAGAC CACAGTAATC ACGCCCTCTC
113341  TCCGCGGATG CGGCGGGCGA GCTGGATGTC CTTGGGCATG ATAGTGACGC GCTTGGCGTG
```

Figure 8 (Page 35 of 73)

```
113401   GATGGCGCAC AGGTTAGTGT CCTCAAATAG CCCTACCAAG TAGGCCTCGC ACGCCTCCTG
113461   CAGAGCCATC ACAGCGGAGC TCTGGAAACG CAGGTCTGTT TTAAAGTCCT GCGCAATCTC
113521   GCGCACCAGG CGCTGGAAAG GTAGTTTACG AATAAGCAGT TCAGTGGACT TCTGATAACG
113581   GCGGATCTCG CGCAGAGCCA CGGTGCCCGG CCGGTAGCGG TGGGGCTTTT TCACGCCGCC
113641   GGTGGCCGGA GCGCTTTTGC GGGCTGCCTT AGTGGCCAAC TGTTTGCGTG GCGCCTTGCC
113701   ACCAGTAGAC TTCCGAGCAG TTTGCTTAGT GCGAGCCATG ACGGAAAAAC AGCACAGCGG
113761   AACACCCAAC ACTAGCGCAA ATACGCCCAT GAGCTGCTCT ATTTATAGTG TGTAAAGTGC
113821   AGTGATTGGA TGATAGAAGA CGCTAAATAT GACGTTACAC ACTCTGATTG GTCTATCTTT
113881   AAGCCAGCAA CAATCGTGCA GTTTCACCGG CTACTATATT CTATTCCAAC TCTACAGATG
113941   ATTATTTAAG TGGTATTTTA TTACTACTAT TATTTTATTT TACTTTTGCT TTGTTCCCCA
114001   AGCTGGTCTT AAACTTGGGC TCAAAGGATC TTCCCGCCTC AGCATCCAGA GTAGCTGGGA
114061   TTACAGGGGA GCCCCACTGC GCCGGCTTGG ACTTTAATTT TTTAAACTTG TCCTCTTCTA
114121   CATCTGGTTT TCATAACCTG AAGGCTGTGT TTATTTTCCA TAAAACAAGG CATTGATTCC
114181   AAAGGTATTA TAATTCCCCA ATTCCGTATA ACCTTCAGCT CTTTAGGAAA AAAAAAAAAA
114241   AAAAAAAAAA GAGGGAATAC TGCTCACCTC CTCTCCGGAA ATGTACCCTT TACGGGAATT
114301   TCTGAAACCT TTCACAAGAA TTGGATTCCT TTGTAATGCT TTAATTGACT TAGGAGTGTT
114361   ATTGAAATCT ACAAAGCATC TCAAACATAG TAGGATTACA CTATTACTCA GAAACATTTT
114421   CTATGAGACG TCTTTCTCTT GATTATGCTC TTTGAATCCT AAACTTGCAG CGTTCTGCAG
114481   CTTTTGTTTT CTAAAGCCTA GGTGTACTCT GCCAGTCACA AAATGGCGTT TCTCCAGCAC
114541   TGCCGCCAGG TACCACCAGC TGGGAGTTGT TCCTCTTGCG GAGCAGGAGG TGGACTTGGC
114601   CCAAGAGAAA CTGGATAGTG GTTCGCAAGG AACATAATTT AGCATTGCCA AGAGCTAATG
114661   CAATCATTTT GAAAATCTCA AAACACTGAA AAGTGGATTG TGACCTTTTT AAATTCACAA
114721   GAGACAGGCC ACATTCTATC TTTTGATTGG TTTAGGCTAT TTTCTTGAAC AGCCATTTAG
114781   AAAGCAGATC TATCATCCTT CATTTGCATG GAGCGTTCCC ATTTTATTTG AAACCAGTTT
114841   AACCCAATAG AAAAAAGGGA GGCAGAACCC ATTATTTAAA GTGGAAACTC CTGAATCAGA
114901   TAATTAGGAG TATTTCCTTT TCAAAAGTTG CGTTTTTTCA GATACCTCGC TTATTACACT
114961   AAGAAAGGTT TATATCTTTC ACAAAGGGTT TACTTACAAA AATCTTCCAA TTTTGTATAC
115021   CTGTGTTTCA TAACTGACTA GCCGTCAAAC CAAGATGTAG AGTTTCCAAC CGTTATTTTC
115081   CAAATTTTTA GAAATTACGT GAAATATTTG AATGCATGCC TTCTCAATAA AATGGGACGT
115141   AGGAAGCACT GGTGCAGAAG ATGGGTACAA TACTTATCTG GGACCACTCC ATTATTTGGT
115201   TGGCACGTTG TTTGAACAAA AAGGGGAAAA GCTCAGGTTA CTTAGCATGG TTCGGACTTA
115261   TTTGAAAACT ACCACAGCAG GAGCGGAAAT AAGACCGCAT TACCTCACTC TCTGCTGTGC
115321   TGTGCTAGGG GGTTATCCAG AATAGGATTG TAGAAGTGGA TGTCGATTTA ATAGTTTTTT
115381   ATTCTCCCAT TAGCTGAGTC TCTGATTGGC AATGTGAGAT CGTTTTAGCT TATTGATACT
115441   TTGAAATGCA CTTAACAGCC ACAAACAAGT TAAAGGGTTG TTACCATAAA ATCTTATCCC
115501   CAGGGTGTGC TTGCATTTAT CACCCGTGTT TGCTTTCACA CTAAGTGGAC TTAACTCCCC
115561   AGCAGAATGC CTGTCAGGGA ACCGGTTTCG TGGACCCAGC ATTTAACGCC TTTCGCAGGC
115621   TTGTGAGGCC CATAAATATT TGTTGAATAA AAGAATGAGT TGACCATGTC ATGGTGCGCT
115681   GATTGCGTGT GCTGACATGG AACACAGGTT GTAAACCTTA ATACCAATTT GGGGCATGTT
115741   GTATGGATGA AAAGGGCATT GGAAATTCCT GAAGTGCATC CCACATTGGA CTGTGGAAAT
115801   AAGTTGCAAG TGCAGAAACG TTTCCACACT TGCAGTTTGA GTATTAATTG CAGCGTTTGT
115861   GAATTCTGGT GTTGTCTACG ATTCATTCTT GTTTGACGTG AAAGGTATTC GCGAGACACA
115921   TCGCTCTAAA ACATTGCCAG AAAATGTAAT AGAGTTGATG ACAACTGGCC CTAACACGGC
115981   CTAAAACTCG CACTTTTCTC TCCCTCCGCA ACTATTCAAA ACACTGTATT TTACATTTCT
116041   TGCAAATTAA AAACTAACAT CTCTGGCAAC GGACCTCTAA AAATTTCTAA TAAAACTCCT
116101   CGGATGCTTG TGGCACTGCA TTTGTAAACC GCCCCCTCTC AACCTACTCC CTAAAAAAGA
116161   GCTGCTTTTT GAGAGAGAAG CGGTACCCTC TGATGTTACT GGGCGGCAGT CTGCCTACAA
116221   TTTCCTTCAC AATGAGGCAA CCAGAGCGGC TTTTTCTGTG TGTTTGCTTG CGTTGAGGGG
116281   AGCAGGACCA TAGGCCCTAG AGGCCCCCAG CTGCCTTCTG AGACTGGGCG AAACCCTCGG
116341   CAGCGCGCAG GGGGCGCTAG GGCGCGAGGG GCGGGCACTG ACGGGCACCA ATCACGGCGC
116401   AGTCCCACCC TATAAATAGG CTGCGTTGGG GCCTTTTTTT CGCATCCTGC TTCGTCAGGT
116461   TTATACCACT TTATTTGGTG TGCTGTGTTA GTCACCATGT CTGAAACAGT GCCTCCCGCC
116521   CCCGCCGCTT CTGCTGCTCC TGAGAAACCT TTAGCTGGCA AGAAGGCAAA GAAACCTGCT
116581   AAGGCTGCAG CAGCCTCCAA GAAAAAACCC GCTGGCCCTT CCGTGTCAGA GCTGATCGTG
```

Figure 8 (Page 36 of 73)

```
116641  CAGGCTGCTT CCTCCTCTAA GGAGCGTGGT GGTGTGTCGT TGGCAGCTCT TAAAAAGGCG
116701  CTGGCGGCCG CAGGCTACGA CGTGGAGAAG AACAACAGCC GCATTAAGCT GGGCATTAAG
116761  AGCCTGGTAA GCAAGGGAAC GTTGGTGCAG ACAAAGGGTA CCGGAGCCTC GGGTTCCTTC
116821  AAGCTCAACA AGAAGGCGTC CTCCGTGGAA ACCAAGCCCG GCGCCTCAAA GGTGGCTACA
116881  AAAACTAAGG CAACGGGTGC ATCTAAAAAG CTCAAAAAGG CCACGGGGGC TAGCAAAAAG
116941  AGCGTCAAGA CTCCGAAAAA GGCTAAAAAG CCTGCGGCAA CAAGGAAATC CTCCAAGAAT
117001  CCAAAAAAAC CCAAAACTGT AAAGCCCAAG AAAGTAGCTA AAAGCCCTGC TAAAGCTAAG
117061  GCTGTAAAAC CCAAGGCGGC CAAGGCTAGG GTGACGAAGC CAAAGACTGC CAAACCCAAG
117121  AAAGCGGCAC CCAAGAAAAA GTAAATTCAG TTAGAAGTTT CTTCTAGTAA CCCAACGGCT
117181  CTTTTAAGAG CCACCTACGC ATTTCAGGAA AAGAGCTGTA GTACACAGAT GAAATCCCCC
117241  AAGCAAATGC AACACGCCCT CAATTATATT AGAATCACTT GGAGAGTCGA TAGAACTTTA
117301  ACATAGCCTC ATCTAGTAAG AATTTACTAC TCAATCTATC AAAGATAGCA AGGTGAATTC
117361  AAATGCACCG AGTTAAAATC GAGTTTTAAA GTCACCTGGG TTTCGGTAGC CGGAAGTCCC
117421  GCGTCTCACG ACTCCAAGCT AATTAGTCAT AACCGTATTG AACCAAGGTT GAAGCCCAGT
117481  CCCAGGCTTG AGGCTTTTTA TTATACAAGG TTAAAGTGGG GATATTGCGT TTTGGGGTCA
117541  ATATTGCTAA AGTAGCATTT TCCGAAATTG GGTGGTCCTA AGAAATGCTT CTGGGATAGT
117601  TGGCAAAATA TATGGCTTAA CCACGCCCTC TCCACAGGAG TGGCTAGCGA GCTGTCTGTC
117661  CTTGGGAAGG ACGGTGACCC TGCTGGCGTG GCTGGCGCCC ACGTTGGCGT CCTCTGAAAG
117721  CCCCGCCAGG TAGGCCTAGC TCGCTTGCTT TCTGCAGCGC CATCATGACA AAGCTTTGAA
117781  ACGCAAAATG CTTTCTTTGT GCAGCGCCTT ACCATGGGTG CACTTACGGG CTGTCGACTT
117841  GGTTTAGGCC CTTGTCAGGA CAAAGGAGCT TAGTTTGTTG GAGTTTTAGA GCTGCAACCC
117901  AAAATCCCTT GCTCGGTTTC TCTGTTTTTA GAAACGGAAG CGCCCTGATT GGATATTTGA
117961  AAATTACTGT GCTTAACTGG ATCGTGTTTC ATCAGTCGTG CAGGATTTTC AACCCTGGTG
118021  GAGCCCACAC ATTCAAAACT GAAGATCCTT TTCTCAGAAC TGCCCCTTTA AGCTTTTGCA
118081  ATTTTAATTC TGGGGGTCAG ATTTTAATAA TTGGACTTTT TTGTTTACAT CTGACAAGAG
118141  TATATGATGA GCCAAGTTTA CTCACTTTTA CTTAGTGCAG TTCAATTCTA AAAGTTTATT
118201  TTTGCGTGTG TGCATATGAG TTAATAATCA GTTGTATTTT TCAAACGGTC TTTTTTCAAT
118261  TGTTTTGCTT AGCTCCTTCC ATCGTCTAAA GTCAGGGATA CAGGCACATC ACATCCCTGT
118321  TCCCCCTTCC TCAAACTAAT ATGTAGCTAC CTAGGTTTAT CCTTTAAAAC AAAAATTCTC
118381  ACCTATTTTT GTGAGAAATA TACATGTTTT TCTTTGAACT AAGTATTTTA CATACACCTA
118441  TCTATATACA TGCATACTTG TGGTTTTGTT TTTTTAAAAA AAAAAAAAAA AAAACACGTT
118501  ATCTTTTGAG ACTGGGTCTC AGTCTGTTGC CCAGACTGGA CTGCAGTGGC ATAATCACAG
118561  CACACTGTAA CCTCCAACTC CTGGGCTCAG GCTATCCTGC AGCCTCAGCA TCCGGAGTAG
118621  CTGGGATTGC ATGCACGCAC CACCAAGCCG GGCTTTTTGT TTTTATTTTT TGTGGAGACA
118681  GTCACACCAT GTTGTCCAAG CTGGTCTAGA AATGGCCTCA AGTGATCATC GACCTCCCAA
118741  AGTGTTGGGA TTACGGTCAC TGTGCCTGGC CTTGTATGCA TAATTGTTTT GTCTTTTGAT
118801  TAGGGTTATT AATTTAAAAA ACAAAGCCTG GACGCAGTGG CTCACATCTG TAATCCCAGC
118861  ACTTTAGGAA GCCAGATGGG CAGATTACTT GAGCTCAGGA GTTCAAGACC AGCCTGGGCA
118921  ACATGGTGAA ATCCCATCTT GACAAAAAAT ACAAAAAATT AGCAAGGCCC AGTGGCACGC
118981  ACTTATAGTC CCAGCTACTT GGGAGGCTGG GGTGGGAAGA TGACTGGAAC CTGGGAGGTA
119041  GAGGCTGCAG TGAGCAGAGA TCGTGCCACT GCACTCAAGC CTAGGTGACA GAATGAGACC
119101  CAGTCTCAAA ACAAAAATAA TAAAAATTTT TTACAACGAT GTTATATACA CTTCTGCATG
119161  TTGCTTTTCT CTTAACCAAA CTTTTCTAAA ACCCTGTCAT GAAAAAAGAA ATCCTTCACA
119221  TGGAATAGCA TAAGTTATTC ATCCATTTCT TATTGATAAG CATTGATGTT TCCAGTTACC
119281  ACTGCTGAAC ATGGTGCAAT TGAATAGAAT TCCAGGGCTG AGATTGCTAG GTTTTAGGTT
119341  GTATTTTATT ATTTTATTTA TTTATTTATT TATTTAGACA GAGTCTTACT CTGTCACCCA
119401  TGGTGGAGTA CAGTGCCATG ACCTCAGTTG CAACCTTTGC CTCCTGAGTT CAAGCGATTC
119461  TCATGCCTCT GGTCTCCCGA GTAGCTGGGA TTACAGGCAC CTGCCACCAG GCCTGGCTAA
119521  TTTTTGTATT TTTAGGAGAG ATGGGGTTTC ACCATGTTGG CCAGACTGGT CTCAAACTCC
119581  TGGCCTCAAG TGATCTGGCC ACCTCGGCCT CCCGAAGTGC TGGGATTACA GGTGTGAGCC
119641  ATGGCGCCAG ACCTGGACTT TGTCTTCTGT TTCATCAGTC CTTCTGTTGG TTCAAGCACA
119701  GTATCACACT GAAGACTGAT GATTCTATAT AAATATGGTA AAGACTGTAC ACCCTAACTG
119761  TTCTTATTTT TTAATTTTAA GGCAATTTTA GATTCCAGCT TTCCAAAGAA TTGTGGAATG
119821  CTTAGAGCTA GAGAAGCCTT GGAAGTCATT TAGTTTTTGT TTTGTCAGAG AAAATTCTGT
```

Figure 8 (Page 37 of 73)

```
119881  AGAGACTCTG TCCTGCTCTC ACTGAATACC ATCCCATAGT ACCCCCCAAC AGCTTTAAAG
119941  GGCAATAATA CCTTATGGAC AGTATGCTTT TCCTCAAATA TATTCTAAGC CATGGTCAAT
120001  GCAAAAGAGT GAGAAGGAAA GTAGAATAAG TTATCTAAGA ATCAGTGGGT GCTCTCTTTA
120061  AACTGATTTA TCACTCCCCC TTCCAAACTC TCTTGAAGGT CACTCTGCCT CCCTTTCTAC
120121  ATAAGAACTC CTAACTCCAA GGGAGGAAGG TAAGTTATTC TTATTCCTTG CTTAGAAAAA
120181  GAGAAAATAG GTTTGGTAAG CATCCGCTTT CTGCTACCAT TCTCTGTGTT TCTGTGTTTT
120241  TTATAGGATC ATTCAATTAT TGGTTGGCTC TTGAGAGGGA ATGCAAGGTT CAAGGACACA
120301  AGCCTAGATC TTGCCTGTAT AGAACCTCAT GATGTTATGC TTCTCTAAAA TGAGGCCTGG
120361  AGGAGACATG TTGAAAGTGA CCCATAAATC TGCAGTATCT CATGTCTCTC AATGGGGACA
120421  AGGAGTACCA TGGGAAATAG CATTAGGTCA ATGACAGTAA CAACTCCCAG GTGAGTTGAT
120481  TTATTCTTTT ATTTATAAAG TTGTTAATAT GCTACATAGT CCCTAATTTT GCCACAAATA
120541  GTCATTATTT TAATTTCATA TTTCACTATT GATAAATGAA GGAAAAAATG AGTAGCAGTT
120601  AAGCAGTCCA TAAACCTACA TATAAAGCAA ATTGGAGATT TTAAAATTGA TTCTGGATGC
120661  TTAAAATCCT TCTCATTGAA AAAAAATTTC GTATTAGAAG ATTTCAACAT TCTTTAAACT
120721  GAGAAGCATA ACATATAAAC AGAAAACCAC AGCAAAACAA AAATGCAAAG CTCAATAAAT
120781  GAACACAAAG TGAACACCAT AATAATTGCC ACACAAGTAA AAAAACAGAA AATCAGCCAA
120841  CCCTCCCAGA GCCGCCTGAT GCTTGCTTCC AGTCACATTA TCACTCCATC TGCCCTAAAC
120901  ATAACCCCTA TTTTGATTTC CAATGCTGTA ATTTAGTATG CCTGTTTTTG AAACATATAA
120961  AATGGAAATA AAACAAATGT AATCCTATGT ACCTGACATA TTTCACTCCA GAACATTAGG
121021  TTTGAATAGA TTCATCTGTG TTGCTGTGTA TAACTTTAAT TCATTTTTAT TGTTATGTAA
121081  TATTCCATGT TATGAGTGCA ACAATTTAGG TGTCTACTGT TGATGCATAT TTGCTTCCCT
121141  TTTTCAGCTA ATATAAACAA TACCGTGAAT ATTCCTGTGT ATGTGTCTTG GTATATATAG
121201  GAATACATAT TTTGTTTGTA TACCTAGGAG AGGAATTGTT GGGTCAAATG CTAAACTCTT
121261  TTTGAAAGTG GTGATATTAG GTTTACATGC GATGAAATGA AAATTAAAAC CACAGTTATA
121321  AACAGCATGG ATGAACCTCA CAAACCTAAT GTTGATGGAA TCTAGCTGGG AATTCCTGTT
121381  CTTCCATATA CTTCCCAATA TTTTTTTCCA ATTAAAATTG TTAATCTTTT GAAGATGTTA
121441  TCCATTGTGG CAGATGTGCA GTATTATCTC ATTATGGTTT TATTTTACAT CTTTTGCCCA
121501  TTTTTTCTTA ATTGGATTGT ATATCAGTCG ACTTGGGCTG CCATAACAAA AATACTAGAC
121561  TAGGTAGCTT GAACAAAAGG AGTTTATTAC CTCACAGTTC TAAAGGCCAG GCCAGAAATC
121621  CTAAATTGAG GTGCCAAGAG ATTCAGTTTC TAGTGAGGGC TCTCTTATTG ACCTGAAGAT
121681  AGTTGCTGTC TTAGATTGTT TGGTGCTGAA CAGAATACCA GAGACCAAAT AATTTATAAA
121741  GAATACAGAT TTATTTCTTA CAATTCTGGT GGCTATAAAG CCTATGGTCG AGGGGCCCAC
121801  CTCTGGCAAG GGCCTTCTTA CTGTTATGGC AGATGTGAGA TGTCATCTCA TATTCAAACC
121861  ACAGCAGTCG CCTTTTGTGT CCTCATGTGG CCTCTTCATA TGCCCATAAA ATGACCTCAT
121921  GTCTCTTCCT TTTCTTATAA GGACACCAGA TCTATCAGAC TACTGGCCTA CTCTTATGAC
121981  CTCATTTAAC CTTAAATATC TCCATAAAGT CCCAAAATCC CTATCTCCAA ATATAGGCAC
122041  ATTGGGTGTT AGAGTTTCAA CATCAATTTT GGGGGAACAC AATTTAGGCC AAAAAGATTG
122101  TGTTTTTTCT TGTTGGTTTA AGATAGCTGT CTTTTTGTCC TTTTTGTCCT TTCTTTTTTT
122161  TTGAGGTGGA CTCTTGCTGT GTCACCCGGG TTGGAGTGCA GTGGCGCTGT CTCAGCTCAC
122221  TGCAACCTCC ACCTCCTGGG TTCAAGAAAT TCTCCTCCTC CCAAGTAGCT GGGACTACAG
122281  GTGCATACCA CCGCGCCCTG CTAATTTTTG TATTTTTGAT AGAGACGGGG TTTCACCATG
122341  TTGGCCAGGC TGGTCTCAAA CTCCTGACCT CAGGTGATCC ACCTGCCTCG GCCTCCCAAA
122401  ATGCTGAGAT TACAGGTGTG AGCCACCAAA CCTGGCCTGT CTTTTCTGTT TTAAGTTTTT
122461  AAATTTTGCT CACGAACCCT TTATCCATTT TATGTGTTGC AGGTATTTCC TCTGTAACTT
122521  GTCTTCACTC TGTCAGAGGC TGGAGTGCAG TGGCACAATC ACAGCTCACT GCAGCCTCCA
122581  CCTCCCAGGA TCAAGCGATC CTCCCATCTT ATCCTCCTTA GTAGGTGGGA CTACATGTGC
122641  AGGCCACCAT GCCCAGCTAA TCTTTGTATT TTTTTGTAGA GATGGTGCTG TTGCCCAAGT
122701  TGGTCTCAAA CTCCTGAGCT CAAGCAATCC ATCAACCTTG GCCTCCCAAA GTGTTGGGAC
122761  TAGAGGTGTG AGCCACCACT GCACCCAGCC AATGATATCT CATGATGCAT TAAAGTCATT
122821  AATTTAGTGT ACTCAAATTA AGCACACTGC CCTTTTATGC ACAACCTTTT TTGTATCTTA
122881  TTTAAAAAAT CATTTTCTAT TTCAAGGTCA TGAAGATCTT ATTTTATAAT ACCTTCTTGT
122941  GAAATTAGTT CTCAAGACTA CCCTCACTTC TAACACCAAT TATAAGTTGG GAGGTCTGTG
123001  GTTCCCAATC AACCTTAGGT TAGTAATTTG CTAAAAGGAC TCACAGAACT TGCTGAAGCT
123061  GTTAGCCTCA TGGTTACAAT TTATTATAGG ATATATAGCT TATTATGTCA TTCCAATGCA
```

Figure 8 (Page 38 of 73)

```
123121  ATGTAAAATT ATACAACTAC TTTTAAAAAG ATTTTAGCAT TTGACCCAAC AATTTCACTC
123181  TGAGGTATAC AAACAGCAGA TATGTGTGCA CATATATACC AAGACACATA CACAGCAAAA
123241  TTCATTGTTT GTAATAGTTG AAAAGGGGAA ACAACTCAAG GAATAAAGAT TAAAATCAGC
123301  TGAGAAAAGA AACACACAAG GCAGTATTAT GGATCGAATT GTATGCAGAT CTCCCTTGCC
123361  CCCAGAAGAT ATGTTTAAAG TCCCAACTCC CAGTACCTCA GAATTGTGGC CTTATTTGGA
123421  AATAGGATAG TTGCAGATAT AATTAGTTAA GATGAGGTTA TAGTACAGTA TGATGGGCTG
123481  GTGACTTAGA AGAAGTAGTA TATATATATT TTTTAATAGA ACTAGTATTC TTCTAAGGTG
123541  GTCACGTGAA GACAGACACA CACAGGCAGA GACTGAGGTT ATGCAGCTGC AGGTCAAGGA
123601  ATGTCAAAGG TTGCCAGCAA GTACGAGAAG CTAGGAAGAG TCAAGGAAGG ATTTTCCTAC
123661  AGGCTTCAGT GGAAGCATAG ATCTAATGAT ACCTTCATGT CAGATTTCTA GCTTCCAGAA
123721  CTACAAGAGA ATATATTTGT TGTTTTAAGC CACCCTAGCT TCTAGCTCTT TGTTACAGCA
123781  GCCCTAGGAA ACTAATATAG GCACAATCCA GGCAAGTTCC AAATATGAGC TTCCAGTTGT
123841  CCTCTCCCAG TAATATGAAC AGTATTACTT TCCCAGCATT AATGTGTGAC AATACACATG
123901  ACGTACAGAG CAGTCCCCAC TTATGCACAA AACATATGTT CCAGGACCTC CAGTGGATGT
123961  CTGAAACCAT GGATAGTACT GAACTCTATA TAGCTGTTTT TTCCTATACA GACACAGCTA
124021  TGATAAGGCT TAATTTATAA ATTAGGCACA GTAAGAGATT AATAACAATA AATTAGAATA
124081  ATTGTTAAGA ATATACTGTA TAAAAGTTAG GTGAATGTTT ATTTCTGAAA TTTACCGTTT
124141  ATTATTTTTG GACTGCAGTA GACCACAGGA ACTAAAACCA TGTAGAAACC GTATACAAGA
124201  GAACTGTATT TCACCCGAGC CTCAGTGTGC AGTTTTAATG GCCTGCCATG GTTGACTGCT
124261  CACATGGCCG ATCTTTTAGT CTACCTCCAC AGGTAGAGCT GATACTGTGT GGCTCAAAGT
124321  TCCTATTATA AATCACATTG TTGACTGTGT GGTGGTCAAA ACCTCCAGGT AAACAAAGAC
124381  ACACTTATCA GTGAGAACAT TTCAAGGGTC TAAAATTCAT CTCCCAGTAG CTGAGGGCAA
124441  AGGCTAGACC TCTTTTTGGG TAAGATAAAT TTTTTACCAT ATACTTTATT TTGCTTTTCA
124501  TGTTTAACTT TATTTTGCTT TTCATGTTAG TTCCCCTGGA ATTGTTTTTT GTGTATAGTG
124561  TGAAGTAGGG GGTCAAGTTT CTTTTTTTTT CCTTTTTGTT CTTTTTCTGT TTAAAAGGCT
124621  ATACAATTGT CCCATGCCAT TTATTTACAA GAGTCCTTTC ACCATTGTTG TATGGTGCCA
124681  CTTTAGATGT AAATCAATGT CCATATTTGT TTGAGCCTGT TCCATTCGTT TGTCTATTTT
124741  TGGACAACAC TGCCCTGATT ATTGTCATTT TATCAGTTTT GATATTTAAT AAAGCAACAG
124801  ATTTGTTTAT TTTGGGCCCT TGGATTTGTG TATTAAATTT GAACCCTGTT TGTCAATTTC
124861  TATAATAAAG CTTATTGGGA ATCTGATTAG GATTACAATG GTTTTGTAGA TCAGTTTGGG
124921  GACAATTAAT ACCTTTAAAA TATTGACCGC TTCAACTGTA AATATACTCC TCCATTATTT
124981  AGTTTTCCTG TTTAATTTAT CTGAGTAATA CATTATAGTT TTCTTCGTAG AAGTCAGATA
125041  CGTAGAAAAT TCAAAGCCCA AGTGCAATAG CTCATGTCTG TAATACCAGC ACTTTGGGAG
125101  GCCGATGTGG GTGGATCACC TGAGGTCAGG AGTTTGAGAC CAGACTGGCC AACATGGTGA
125161  AACCTCATCT CTAGTAAAAA TACAAAAATT AGCTGGGTGT GGTGGCGGGC ACCTGTAATC
125221  CCAGCTAATC AGGAGACTGA GGCAGGAGAA TCGCTTGAAC CCAGGAGGCA GAGGTTGCAG
125281  TGAGCCAAGT TCCTGTCACT GCACCCCACC CTGGGCGACA GAGCGAGACT TCGTCTCAAA
125341  AAAACAAAAA AAAGAACATT CAAATAATCA ATGTAGATAA TTCAAATAAC TAAAAAATGA
125401  ACAGTTATTA AAATATCAGG ATATAAAAGC AAAAAAATCA ATAACCTCCA TATATACAAA
125461  ATGGCCAGTT AGAGAAAAAA AAAAGAATAG GCGAGACTTA AAAAGGCTGG GAATCTCCCT
125521  GAAAATCTTT GAGAGCCTTG GCCCTGCCCT CAGGGATTTC TCTGGCTTCA TGCCCAGATA
125581  CGGGTACAGT TCCTTGTTTA AAAAAATTTT GCTCCATCAA TCAACAAGGG GCTCCTTCCT
125641  CAGAGCACAA GGACCTCCAT AACACCGGAC ACTAGATGTC TAAGGGACAC CTCTTAAGGA
125701  AGTTAGACTT CCAAAGAATG GTGTTTCCTC TGTCCCCAAA CTCTGGAACT CACAGCACAA
125761  CTGCTCCTTG GAGTTCGGTT TCAAATCTAC AAGGCTGTCA TGGAGGTTGC AGACCAAGTC
125821  CGTGGCCTCA GTGTCCGGAT GTACGGTGGC CTTGGCACCT GAATGTGAGA ACATGACCTC
125881  CCTGAAACCA CCACAAGTAT TGTTTCATGT TATGTATGTT TTTTCTTATC TGAAATTCCT
125941  TTTCTTTAAA AATTCAAATT ACATATTTTG CAAGCCCCTG AACAAGCTTC ATGAGCATTT
126001  ATTGAACCCA CAGCTTTTAA AACCTACTGA ACACTTTGCT CTATGTTGTC ATTCACTATC
126061  CACCAATTAT TTAATTATTG ATCAATATTG TTTCCTTAGT GTTGGGATCA TTTATGCATG
126121  TATTTCTTTT ATATTGCATA TTTTATATTT CTGCATTACA GTTATTACAT ATTACTTTTG
126181  CTACAGTAAT AGTTCAAAAG TGTACATCCA AAATTTAGCT GTGAAGTGGA TGGACTGAGG
126241  CAGAACTGGA GGCAAGAAAA TGTCACAGTA ATTCTAAAAA AGATGATGTA CAATTAGAGC
126301  AAGAGAGTAG CACTGAAATT GAAGAAAAAT AGATGCGTTT GAGAGAAAAT TAGGAGGTAG
```

Figure 8 (Page 39 of 73)

```
126361  AATCAACAGA TTAGATGTAG GGATGAGAAG GGTCAAAGAT GACACTAGGG TTTTTAACTG
126421  GAGCAAGTAG GTAGACAGAA CATTTCTTCC TGAAAGGGCA GGTCAGATCA TGTGTTGTCT
126481  CAAAGGGCAT GAAGAGTAGA AAGCCTGGGA CAGATCCTGA GATGACCAAT ACCCATGGTG
126541  CAGGGAGAGG GAGGGAGATC TGCTAAAAAG ACTGCAAATG TCAGGATAGT AGAAAATCAT
126601  GAGTGTGTGA TGTCCTGGAA GTTGAGACAG TATCACATTT GAGAACATTT AAATTGGTAA
126661  CTCTGACAAA AAGCTGGAGG CCAACTGTGA ATGCCCATGA GAGTGAGAAG CTCCCACACT
126721  TTTGTGGGCA TCAGAAAGCC CACCAGGTTC CTGCAGTGAA GATCTGAGAA GGATCCTCTT
126781  GTGGCTTTGG CAGGGAGAGA AGAATTATTA TGAAATACAC CCCAGAACCT TCTTCAAAAC
126841  AAAGGCCTAC TCTCAAGGGG AAAACATTTT GCCAGAGTCT TATCCCAGCT GGGAGAAGGT
126901  AATTCTTCCC ACTGCAGCCT CATCTAGGCT TTCTGTCTCA CTTAAGGGAA GAAAATTAGT
126961  CAACAGGGAT CAGAGCTTCA TGAAAATAAA TTGGAAATGG TGCAGCCAGG AAAGGAGCAA
127021  AGGTCTGAGG AGGAGGAGAA GGAGGAAGAG GAGTTGTATC ATTATAAATA CTTGAGGAAG
127081  AGGAGGAGAA GGAGGAGGAG GAGGAGTTGT ATCATTATAA ACACTTGAGG AAGAGGAGGA
127141  GGAGAAGGAG GAGGAGGAGT TGTATCATTA TAAACACTTG AGGAAGAGGA GGAGGAGAAG
127201  GAGGAGGAGG AGGAGTTGTA TCATTATAAA CACTTGTGAC GGTCCCAGCC CCAAGATATA
127261  GGCATGCTAA TAAACTGAGG CTTAACACTT TGACTACAGA ATGCTGCTTC TCCCTAACAC
127321  CATCAAGGCT CCAACTGAAT AACAATGAAT TATGAATGAA AGAGCTGTAA GGAGAGACAA
127381  AAGTTAGAAT GAGACAAGTA TTGTTATCTA GAGATGCCAA GAAGGCAAGG AAGATAACTA
127441  AAAAGGCACT CTGGATTTAG AAATAGGAAG TCATTAGTGA CCTTGTAAAT AATGGAGCCA
127501  GAGGAATACC AAGGGCAGAA GCCTCACTAT AGTGTGTTGC ACCTGTCAGA GGTCAGGAGG
127561  TGTAACTGAC TCTCCCACAG TGTGGCTTTG GAAGAGAGAA GTCAGCAGCT GCATGGAGAT
127621  TTGGGAGAGG GAAAGCTTTT TTTTTTTTTT TTTAATTGGA AAAGACTGAG CTATGTGTAA
127681  ATAGAATAAG ACAGGAAGAG TGTAGACACA GGAAAGAGGG CAGACAAAAA CAAGTGCACA
127741  GTTATCTAAG GGAAACAATG GGATCAAGCT GCAAGTATAT AAACTTGTCT TGATAGAAGA
127801  ATCCTTGATC TGGTTTATTC AGTGTTTGGT CCAAACCCAC ATCCCTGTTC TGCCTGTCTC
127861  TGACTTGCTC TGTGCCCCAG AAGCCCAGCT TCTACAGATA GCATTAGCTG GGCAGCCCTG
127921  CCCTCTTGCA ACAGCTGGAT TTGGCCAGTG ATCAGCCCAG CAGGAATGTA GATGGCAAAG
127981  GAGAGAGAGG TTAGTGTACT TATTCCCTGC ATCACCCCCC TGCTTGGTGG GCAGCTCTTC
128041  CTCCACAGTC CCAGCTCTGG CCTAGCTCTG GTTACAGGTT CCCTCCCATT GCCTCTTCAG
128101  ATTTAAAGGT GTGTCTGTCA GGGTATAACT GGGAGCTAGA AATTGCACTG AAATTGAACA
128161  AAGAATTTTA TGGGAATGGT TGTTAACTAG TTATAAGAGG ACTGAAAATG GAAAAGTGGA
128221  CAAACGTATC AGAGATAGTA ATGACAGAAA GCAACTACCA CCTCCAGGTT TAGGAGAACA
128281  AGGAAAAGAT TCTTTGAAGA GATCCCCAGA ACTGGGACCT CTGAGGAGTG TATGCTGGAC
128341  CACTGATGAT GATATGTCTG TAGATAGAGG CATGATGAGG CTGATTTTAG GAGCATGGAA
128401  GATCTCCAAA CTGAAGCCAA CTGCTGTTAC TGGATTCAAC TGCCACTGCC AGGTTGAAGA
128461  ACCCATTCTG TGAGGATGTC AACAAACAAA GTGGGAAATC TTTTCACATC CTTCCAGCCC
128521  TCTAGTCTTC CTCCAGTGCT TTCTATTGGT AGGGTTTGGG GAGGTGGCTA GCAAAGCGGT
128581  ATTGGAAAAG ATAGAAGAGA CTAAATCTTC ATAACCAGCA CAGGGTGACA CTGGATCACT
128641  ACTGTTGCTG ATCTTGGGCT GCCTCATATC CCCTGTTCTT CCCATTAGCC CTGTCACAAC
128701  TTTGTAGATA TCCCTTCATT ATATGCCCTT CATATATTCT TTTGGTTTAA CTTTTTCTGT
128761  TGGAATCCTA ATATGGCACT CCTCCATTTT TCAGGACCAA AAGAGTATAA AAGATTATCT
128821  TTTACCAAAA AAAAGACAAA AAACTGATCT AATTCCTGAT TTGATCATTA CACAATCTAT
128881  ACATGTATCA AAATATCACA TAGTACCCCA TAAATATATA CAACTGTGTC CATTAAAAAT
128941  AAAAATTAAA GAAAAGATGG TAAATATAGC TCTGTCAGGC AGTGGAGGTT TTACCACGAT
129001  GGCTGTTATT TCCCCCATGA AGGGGGGAGT GAGGGAGCAG CTGAAAGTAG GTGCTTATAG
129061  GGGTATAGAG GGGCTCAAAG CTTTGAGAGA GGAGAATGTC TGAAAGAGCT GCCAAATAGC
129121  ATGCAGGTCC CATGGGGGCA GAGCCTCTGC TCATTCACCA GTGCCTCTTC AATATCTACA
129181  CTTAAGCCTA ACACAAAGTG TGTGCTTAAT AAGTATTTGC TGAGTATGTA AAGTGGAAAC
129241  AGAACCAATC TGGCAAACTT TGTAGGACTG GTGGGCAATG AAGATCAGTC AGGTAAAATC
129301  TGTGGATATA AATTTATATT GATCAAAAAA TTCAAGGTTA GGTGTTTTTC TTCAGTCATG
129361  CTCAACGATG CTTCAGCCAT GCTCAACTCT TCTGTAGCCA CAGAAAAAAG TTTACCCATA
129421  ATCGAGCTGT GTCTGTGTCT GAATAATGAA AAGACCATGA TGCAAGGGAG TTGGAGACAC
129481  AGAAACAGTG TTTGAAGTAA TGGGTAATGG AAGCATGCTA CCAGGGAAAG GAAAGAAGTG
129541  GCAATAGGAA GGAACAGAGA TCTGTGGTCC TATGTCCCCT GAGCATATTC ACATGTTAAA
```

Figure 8 (Page 40 of 73)

```
129601  GCTAATTCAG TTTTCAATCA TCATTAAAAT TTTGTTCCTA AATATATGGC CATTATTTTC
129661  CACAACCACA CTAAAACTTT ATTACCTCTG GCAAGTGACT ATGCAAGTAA CTAAGAGCAA
129721  AAATATCCAC AACTACCATT TGAGCTATCA ATTTAGGGAA AGTCATCTGG CTATAATCTA
129781  AGTGACCCTC CACTGAATGT CAGTATCTTT GCATATGTGA TTTAAATCTG GGCCTTCGCA
129841  ACACCATGAA CTGTTCTTGT CTTGAATATC CAGATTGAAG GAAATAATCT GAGTAGTTAC
129901  GAGTCCTGAA GCTAGAAAGA TGGAAACCCC ATTTGCTCAT CAGAAAGCCT TAGAGCTTGG
129961  GCGCTGGCGG GTCCTGTCTC ACCGGGACAG AGGGGCTCTT TCCTCCCCAT CTGATAGTCT
130021  GATAACTAGA GAAGCCGGCC AACTTATTCT CCAAGAAGGA GCCATCTTAG TTCCTCCTGA
130081  AATGTTCATA TTTAGAAATT ATTGTTTGTC AGTAATTTAA CCCCTTAATG GGCTTGCCTT
130141  GTGGTCCATA CCACTGAGTG CAGAGCTTGC CTGGAAGAAT TGTGAGGGCC ATTCCATCTT
130201  CCAGGCAGTA GAGTTCAGTA CTTCTTTAAA ATTGCTGCTG AACTCTGTAT TTGAAAAGAA
130261  AGAATCATTT GGGTGTGGTA GCTCACACCT GTAATCCTAG CGCTTTGGGA GGCTGAGGTG
130321  GGAGGATCAT TTGATGCCAG GAGGACCACT TGAGACCACC CTGGGTAACA TAGCAAGACC
130381  CTGTCTTTAG AAAAAAAAAA TACAATAAAA TAAATACAAT AAAAATAAAA GCAAAAAGAA
130441  AGAGTCCATC TTAGGGACAG ACTGTAACTA CTCACTGGAG CTTACCTTTA CATAGTTCAG
130501  GATCAATTAT AATAAAACAC TTTTGTGCAG ATTCAATAGG ATTATTTTAA TCCCCATCAT
130561  CTCTCTGAGT TTCCAGTCAG TTTCTCTGCA TGTAGACACC CTTCTCCAGC CCACCATTGT
130621  CTCTCCTCCT ATAGCTCCAC CAACAAATCA GAACTTTTTC TAACTGCACC TAGTGCACCT
130681  AGAGTCTACT CCAGAATGCT CATGGAGAAA GTTTCTGAAA GGTAAAACTC TGAATGATAT
130741  TTGTAGCTAA AGGGAGACTT GCTAGAGACA ATAAGCTAAT AGTTGTAGAC TTCAGTAGAA
130801  GAGGAATGAC ACTGCAATGT CAGGGTGCAG GACTTCAAGA GGGCAGAGTA TGGAAACCCA
130861  ATGGGAAAAA TGCTCACCAG GAACATGAAG AGAAGGAATT ACGTGTAAGG ATTTCTCAAT
130921  GTGTTCCCAA ATTTGCCCAG CAGAGGGAGG CCTCGGGTTG ATGGCAGGCT GACCACACAA
130981  TTAAAGAAGG CTGAACCTGG GGGCTTTTAA CAACCATCGT GGGCTCTACT GTAAGCATTT
131041  AGAAAAAGAA AGTTATCCAT TCAAAAATAT ATATATTTTT AAACTTCAGA ACAAAATTAT
131101  GAAGAGCTAT ATTTACTTTT CTACATTCTA ATTTTTATAA ATCTGAGTAT ATTTTGCATA
131161  TATTGTTATA GTACATATTC AATTTTGTAT TTTGCTGTTT TCACTTAACC ATTTTTACTA
131221  GATTACTCTG TGTTCATAAT AATCACTTTT TTAAAACTTT TATTTTTATT TATTTATTTT
131281  TTTTTTGAGT CAGAGTCACA CTCTGTCGCC CAGGCTGGAG TGCAGTGGCG TGATCTTGGC
131341  TTACTGCAAC TTCCACCTCC TGGATTCAAG CAGTTCTCCT GCCTTAGCCT CCTGAGCAGC
131401  TGGGATTACA GGTGTGCACC ACCAAGCCCG GCTAATTTTT GTATTTTTAG TAAAGACGGG
131461  GTTTCACCAT GTTGGTCAGG CTGGTCTCCA ACTCCTGACC TCATGATCTG CCCACCTTGG
131521  CCTCCCAAAG TGCTGGGATA ATCACTTTTT ATGCTGCATA ATTCTTCAGA TTTGTCAGTA
131581  CGACTGTATT TACACTCATT TGTTTTATTA GAAAGAATTC CAGAATATTT TGGCTGCCCT
131641  AATTAATTTT ACAATTAATA TGATTTTGAA ATTGGGTATT GGCTCCTTCT GAATTGGTTT
131701  ATTAAAATAT ATTCTAATGT AATTTATGAC ATTTTCATCA TATTAGCATA TTTATTCTGT
131761  TAGAATTTCA TAATTTATAA AGCTACAAAC TGTATGTGAT ATAGCTTGTA ACTTTATCTC
131821  ATAACTTTAT GCAGTTACAA GTAGAAATAA AATGTTCCCC TCAAGATTGC TTAAAATTTT
131881  ATTATAAACA AGTGTAAAAA ACAAAATCAC TAAAACACTC CCTCTTTTTT CCCCCAAAAT
131941  GCATGTTTCC ATTTTAACAG AACCCGTATT TAATCAGCAG ATTTCTATGG TGGCTAGATT
132001  TGTAGACTAA ATATTAAAAG TCCCAAAGCA AATGCATTTT TCTCTTAAAT TTTACTGACT
132061  TTTTTTTTTT TTCTTTTTCT GAGACGGAGT CTTGCTCTGT CGCCCAGGCT GGAATGCAGT
132121  GGCACAATCT CGGCTCACTG CAACCTCCGC CTCCCGGATT CACGCCATTC TCCTGCCTCA
132181  ACCTCCCGAG TAGCTGGGAC CACAGGCGCC CGCCACCACG CCCAGCTAAT TTTTTGTATT
132241  TTTAGTAGAG ACAGGGTTTC ACCGTGTTAG CCGGGATGGT CTCGATCTCC TGACCTCATG
132301  ATCTGCCCAC CTCAGCCTCC CAAAGTGCTA GGATCACAGG CATGAGCCAC CGCGCCCCGC
132361  CTACTGACTT TTATCCAAAG AAAATATAAG AGCTCTTCAT CATAACGTAT GTTTCTTGCT
132421  CTTGTTATTA AATATGACAC ATTTAGACTT AAACTGATTT GAAGGTTTAT GACATTGTTT
132481  AAGTTATTAC ATAATTAATT CATAAAGATA ATGACTAGTT TGAACTACTG ACAGCTCACA
132541  CATCATCAGT TGAACAGCAG AAAGCTTACT AAGCTACTTT CTTATGTTTC TGTCTCCCAG
132601  CTACTAAAAG AAACGAAACC CTTCCAGGTG TTAAGGCAAA ACTTTCCTCC CCCTTTCTTC
132661  TATAAATCTG ATTCCATGTT AGTGAAATTT CTACTGATGG CTTTGGTTTC CTCTATAGTA
132721  GAATAGAGAT CCTATGGCAA AAGTCATGTC TGACATGGTA GCAAATAGAA ATGGGGAAAA
132781  GGAAGGTCTG CAAGAGCCAA TGTGGGAAAT GGGGAGAGGA CTGACTACAA AAACCCAGCA
```

Figure 8 (Page 41 of 73)

```
136081  CATGACCAAG GTATTATGAG ATTCTGGAAT TTCCCCAAAC CACATTGATT GCTGGGAGAA
136141  TAGAAGAAGT GGATTACAAG TGGAACTTAG AAGGGGAGTA TTCGAGAAGA CGTCTCTGCA
136201  AATCCATTTA GAGAGACCTT TCTCCAGTGG TGACTCAAAG ATGCAGCTCC TTTCATCCTG
136261  TGGCTTGGCC ATCTTCAGCA CATGGCTCCC AAGGATGTCC TCAGGATGGT CTCTAATCCA
136321  AGGAGCCTGA AGAGAAAAAA AGGCATGGAG TATTGTGAGT GGTAGGTGGT TATGGACCAG
136381  TTATGGAAGA ATACACATCA CTTTTGCCCA CCTTCTACTA ACCAGAACTC ACACAGCCAT
136441  AGACACTGAC AAGTAGGACT TAACAAGAAT CTAATTTTGA GTCTAGGAAT ACGACTGTAG
136501  CAAATATTTA ACAGCTTCAA ACACAGGTGC ATTGCTATCA CTATGCTTGG CCCAGGCCTG
136561  TCTCCCTTTC CTGCCATGTC ACAGGGGCCA GCATTTATGT CTAGATTGGG TTGGTTGGGA
136621  TATTAAGACA ATAATGAACC AATACAACAT CTTGAGCATA AAACCAACTG ATACAATGAT
136681  GTACAAGTCA GATGATTCTG ATGATTATGA ATTATGTCAA TAAAAGAAAT GTGATAACTA
136741  AGGTAATTTT TGTTTTGGCA AATTTTTGTT TGTTCATGAC AGGATGAAAT CCTGTCATTT
136801  GTAGCAACAT GGATGGAATT GCAGGATACT ACATTAAGTG AAATAAGCCA GAAACAGAAA
136861  GTTAAACACC ACATGTTCTC ACTTATATGC AGAAGCTAGC TAACTAAGTA AATAAGTTTA
136921  TCTCATTGAA GTAAAAAGTA CAACAGAGAT TACTAGAGGC TGGGAATGGT AGGGGAAAGA
136981  GATGATAAAG AGAGATTCGT TAAAATAAGT TACAGCTAGA TAAGAGCAAT CAGTTCTAGT
137041  GTTCTATTTG TACTACAGAA TGGCAATAGT TAACAGTAAT AAATAATTTC AAAGAGCTAG
137101  AAAAGAGGAC ATTGAATGTT TCCAACACAA AGAAATGAGA AATGCTTGAA ATAATGGATA
137161  TTCTAATTAA TTACCCTGAT CTGATCACTA TACACAGTAT GTATAAAAAT AACACTATGG
137221  GCTGGGCGCA GTGGCTCACA CCTGTAATCC CAGCACTTTG GGAGGCCAAG GTAAGCAGAT
137281  CACTTGAGGT CAGGAGTTAG AGACCAGTCT GGCCAACATA GTGAAACTCC ATCCCTACTA
137341  AAAATACAAA AATCAGCCAG GCGTGGTGGC ATGTGCCTGT AATCCCAGCT ACTCAGGAGG
137401  CTGAGGCAAG AGAATTGCTT GAACCCAGGA GGCGGAGGTT GCAGTGAGCC GAAATCGCGC
137461  CACTGCACTC CAGCCTGGGT AACAGAGCAA GGCTCTGTTT CAAAAATAAA TAAATACATA
137521  AATAAATATT TTTTAAAAAA AGAACATCAC TATGCACCCC ATATATACAT ATAATTATTA
137581  TGTCAATTTG AAACATAATT TTGAAAAATG AAAAAATGAA ACACAAATAT GAATCAATCC
137641  TCTCCAAGTT GATATACTTA AAAGGAAAAA AGTCCGAGGG CTTAAACTAT TCAATCAAAA
137701  TTTTATTAAA ATGCTATAGT AATCTGGAAA GTATTTCAGA ATGAATTGGT ATAAGGTTAG
137761  ACACAAAGAT CAGTGAAACA AAACAGAGAA CCCAGAAATA GATTCACACA TCTATGGACA
137821  ACTGGTTTTG ACAAAGGTGT CAAGGCTATT TAATAAGTAA AAAAATCGTC TTTTCAGTAA
137881  ATGTTTCTTG AACAAGTAGA CATCCGGTGT GGGGGAGAGG AGCAGGAGCC TTACCTCAAA
137941  CTTTATGCAA AAATTAACTC AAAATAGACC ATAGACTTAA ATGTAAAAGC TAAAATTATA
138001  AAACTTCTTT AAAAAATAGG AGAAAATCAT CAACACCCTA GGATTAGCAA AGATTTCTTT
138061  AAAACAAAAC AACAGGTTTA TAGTTTATAA AACATAAATA ACAAAATGAT AAATTTCATC
138121  AAAAGTGAAA ATTTGCTTTT CAAAAAACAT TATAAAATGA AAAGCAGGAG GCTGAGGCAT
138181  GAGAATCACT GGAACCCGGG AGCTACAGGT TGCAGTGAGC CAAGATGGTG CCACTGCACT
138241  CCAGCCTGGG TGACAAAGTG AGACTCTTCC TAAAAAATAA ATAAATAAAT AAATAAATAG
138301  AAAAGAAAAA GAAAAATCAC AGGCTGAGAG AAAATATTTA TAATACATGT ATCTGACAAA
138361  GGACTCGCAC CTGGAAAATA TAAGGAACCT TATAACTTAG TAAGATGACA AGCCAAAACA
138421  AAGAGTAAAA GTTTTCAACA GACATTTCAC AAAAGAAAAC ATACAAATGG CCAGTATGCA
138481  CATGAAAAGA TTTTAAACAT CATTAGTTAC TAGGGAAATG CAAGTCAAAA CCACAATGAG
138541  ATACTTCACA TTCAACAGAA TAGCTAATGT TAAAAGGACT GACAATCCCC AGGGTGAGCA
138601  AGGGTGTGGA GGAAACTACT CTCATATATT GTGAATGTAA GAGGACAATG TTACAACTAC
138661  TTTGAAAAAA GTTTGGCTGT TTCTAACATA AAATTAAACA CTTATACAGC CCAGCAATAT
138721  TTCTGGGTCA TTTCTCCCAG ATAAATGAAC ACATGTCCAT ACTATGACAT GTACAAATGT
138781  TCATACTGGC TTTGTTTCAC AATGCTATAA ACTGGAAACA ACCCACGTGT CCATCAACAG
138841  GTGAATGGGT AAATAAATTG TAATATATCG GCCAGACGCA GTGGTTCATG CCTGTAATCC
138901  CAGAACTTTG GGAGGCCAAG ATGTACGGAT CACCTGAGAT CAGGAGTTTG AGACCAGCCC
138961  ATCCAACATG GTGAAACCCC ATCTCTACTA AAAAATTAGC TGGGCATGGT CACGGGCGCC
139021  TGTAATCCCA GCTACTCGGA AGGCTGAGGC AAGAGAATCA CTTGAACCGA AGAGGCGGAG
139081  GTTGCAGTGA GCCAAGACCA TGCCATTGCA CTTCAGCCTG GGCAACAAGA TGGAAACTCC
139141  ATCTCAAAAA AAAAAAAAAT TGCAATATAT CTATATCTTG GAATATTATA AAGCAATAAA
139201  AGGGAATAAA CTACTGATAT ATACACAAAA TGGATGAATC TCAAAAATGT GAAGGAAAAT
139261  AAAAAATACA TATGATATAA ATTCCATTCA TATGAAATTT TAGGAATGGG AAAACTAAGC
```

Figure 8 (Page 43 of 73)

```
139321  TGTAATTATG GAAAGTACAT CAGTGGCTGC CTGGGGCCAA GAGGATGGAA GAGGCGGCAC
139381  AGGTGATACT ACAAATGGAA ACTATCTAGG TTGACGGAAG TGTTCTGTAA CTTGATTACA
139441  GTAGTAACTG TTTGGGTATA TAAAACGCAT CAAATTGTAT AATTAATACA GGTGTATTTT
139501  ACTGTGTATA AATTATTCCT CAATAAAGTT GATTTTTCAT TAAATATATT ATTTGCTAAA
139561  ATGAGGAGAG ACAACTATTA TCTTAAAATA GTTAAGCACA ATAAAAATAC TACAATCAAC
139621  TCATTATATA TGGAAATTAA AGGAGAAAAA TAGTGGTATG ATTAATTAAA ATAAAAAGAA
139681  AACCTTCTAA ATTTTATCTT AGCTCATAGT TGTAAAAGCT GCCATCCCTA ACCAAGGCCA
139741  CCCTTGACCC TTTCTCATGT TCCATCTTTC TGTTTGTTTC ATAGTTTATG TCTCACCAAA
139801  ATCTATCAGA TAAACGTATT CATATGAAGA TTTAAATATA TTACATGTTA AGCCTTAGCG
139861  AATACTTCAA TATCTAAAGA AGGTACAAAC AAAACAAAAA TCAACACTTA GTTATAAGAG
139921  ATTACATACT CTCCAGGGAA GACCTGAAGA CTAGCCCCTT TCTGGATCCC ACTAGCCCCT
139981  CATCCCACTC CAAGCCCTCC CCTCCAATCC CATATGCACT GGGCATTCAT ACAAATAAGA
140041  CCATCAGCTC TGGATATCTG TACTGATTGA TGCTCCTGCT AACTACCTGA ATGATTGCGA
140101  TGTAAGGACA GCACTGCCTG AATCCTATTT ATCTCTCGCT ATGCCATAGC GGCCTTCCAT
140161  GCTGATGGCG TGTTTGAGGA TCCAGAGGGG TCTTTGGTTG GCAGGATTGT TTTATTTCCC
140221  CAAGAGGAGA GCCTTGATGC AAAAATAGGT GAAGAAATCA GTACAACAAA ACAGAAAGCC
140281  TAGAAACTAC TATGAACACA ATAGAGCAGA AGTAGCCTTA AGAGTTGGTG GAGAAAGGAT
140341  GGTCTATTCA ATTACCTGGG CTGAGAAACT GGCTTTCATA TGGAATAAAA ATAAAATTAT
140401  AGCTATACCC CATATCATAC ACAAAAGTTT CTACATCTAA CAAAGACACA GATAGAAAAT
140461  GTTTTAAAAT TTTAGAAGAA AATAGTGCAG AATTTTAGTG CAGAATTTCT TAGACTAGAT
140521  GCAAAAACAA AAATGATTAA AGTGGCCAGG CACGGTGGCT TATGCCTGTA ATCTCAGCAC
140581  TCTGGGAGGC CGAGGTAGGT GGATTAGTGG AGGTCATGAT TTCGAGACCA GCCTGGACAA
140641  CATAGTGAAA CCCCATCTCT ACTAAAATAC AAAAATTGGT AGGGTGTGGT GGCTCACGCT
140701  TTTAATCCCA GCTACTTGGG AGTCTGAGGC AGGAGAATCA CTTGAACCTG GGAGGCAGAG
140761  GTTGCAGTGA GGGGAGATGG CGCCACTGCA CTCCAGCCTG AGCAACACAG CGAGACTCTG
140821  TCTCAAAAAA ATCTAAAAAT AAAAAGATTA TTTTTAAAAG ACTATTTTAA ACAAAAAAAA
140881  TCGTTTAAAT GATATGACAC ACTACATCTA ATATTTGGAA AAGTACTTCT TAATACTTTT
140941  AATAAAAAGA GGCGCTGAGA GCATACAACC TATCCTCAGA AGAGTGTTTG ACCTCTAGGA
141001  GGGACGCAAG CGCGTTCTTC CTTCATTTTA ACTGGTCATT TTCATTTATT TCAGGAACAT
141061  CTGAAGTAAA CACAGTCACA CGTTAACCTT TAAAAATCTA GGAGGTGCGT ACGCATAGTT
141121  CCATTACTTC AATTTTTGTA CTTTTGCATT TTAAAATATC ACAGGGAAGC TCGGTACAGC
141181  TTCAAGGCTA GGAGGGGTGG CTCTCTCTTA AGCCCTGTCC CCGCCAGCCC CAGACCTCTC
141241  GTCCCGCCCC CATTGCCCAG TCCCCACCCT CACTTCCCCA TTTCCCCACT CCCGCGGTCT
141301  CTTAACGCAC CTCGTTTTTC GTCCAGTGGA CTCAGACCTG TAGTCTTCCA CCAGGATCGG
141361  CTCCTTTCCC GGAGCTCTCG CTCTTAGAGG AAATTGAGAG AAGCATCAGC GGAGACCCAT
141421  CTGTGGCTCT CCAGAGGGCG CGGCATTCAG ACCCCAGATC CAGCTGTGAG AACGGACCCC
141481  AGGCTCACAC CAGGCCTGCG GGAGGCGGCC CACCAGAGGC GCTAGAAAAC AAGCCTCGCG
141541  GGGAGGCGCG CAGGGCGACT GCAAGCTGTA GGGGGCGCTG GCGCCCTCAC AGGCCAGGGG
141601  CAGGGCCGGC GCTGCGGGCG GGGCTCCTGC GGCGTGAGGG GCGGCCCCAG GCCAGCAGCT
141661  GCGCCCTGGC TGGGAGCCGG GGAGCATTTG CTGCTCTGCT GGACCCTGAG TCTGGCGGCG
141721  GGCGGCCTCC TCTCCGCTCC CCGCCCGCCA TCCCCCAACT CCCGATCTCT CTGCTGCGTC
141781  TGGCCTCAGG CTGAGACCCC AACGAATCAT TCCCCGCATG GGAACATTTT ATGATATAAC
141841  TGAATTCAGT TTTATGTATA ACTGAATTAC GGATATGAGA ATCTCAAATG AGGACGAATG
141901  GTTTTTACGC ACAAAACATG AGACACAAAT CTGTAAGAAA TATAAAGTCG TGACCACGTC
141961  CTTTCAGAAC TTTAACCTGT TTGCTGAAGT ACGTCAGTAA CAATGGCAGG GAAAGGGTAT
142021  CTTAAATTTC ACCACAGCCT CAAAGAGGCC ATTTCGTGGA TCCGCTGAGG CTTGGAGTCG
142081  GCCTTCTGAC CACGAGTCCT GCGGCTATGA AAGAGGAAGC CGCGGTTCAG GGCGTCCTCG
142141  CGAGTCGTGC AGCCCGCCCT GCTCCAGCTG GGGACACCGG TGGTCACGGC GCTTTCCAGC
142201  TGCAGATCCA GGCGGCAGCC CAAGATTTGG TCCAGCCGCC AAGGGGTGGC TCGAGTGACT
142261  GACGGGCCTT GAACGCTCCC AGGACCCACA TCTGGAGAGG GAGGTGGGGG TGGGGTGCTG
142321  AAGTCATTCT TGGGGCCCCT GGGGGCGGGC ATGGACCTGG GTAAGGCCAG AGAAATTGAC
142381  ACCTCGTGAC ATCCCTGGAA GAGAAGTACG TTCAGTGTCA CTCCAGAGCT GAAACCGCCT
142441  TCTGGCTGGT CCCTCCTCAC CTACATACTT TTCTAATTTG TCTGGAGCAG GCCGGGCATC
142501  TGTATTATCT GGTTATTTAA ATATCTGGTT ATTTAAAAGC TCTCCATTAA ATTCACATAC
```

Figure 8 (Page 44 of 73)

```
142561  ACGAAAATAA AAATTAAAAA AAATTTTAAA AAAAAGAAAC AAAAGCTCTC TAATGACCAA
142621  GTCCTACACG ATAGTGAATA AATTTTTTTG TGTGGTCCCT AAAATTGAGT TCATGCCTTT
142681  TCTGAAGTAA TAGACGCCCA GAGAAGGGAT CGACTTACCC ATCATGCCAC AGAGATTAAT
142741  TGGCCCCAGA ATTCTTTAGC AGACCGTGTA TATGAACGTC CTTTGCAATC ATATAAATTA
142801  ACTGGGAAAA CCTCATTTAG TATGTTACAT GCCTAGCGTT TTGTGCCTGA ACACCTTACA
142861  AGAACCAGGG ACTATTGCCC CAATATTATA TTTCAGGAAA GGAAGGCCCA GACAAATGGT
142921  GTCACTGGTC CACTTTCACC CAGTTGGTAA ATGAAACCAG AAATTATAGC TGTACCACAG
142981  AAAGGTGAAA ACGTTTCTTT TATAATTTCA CATACAATCT TTAATGGACC CAGTGTCCAA
143041  CACATTAAAG CAAGTGCTCA GGAGTGACAT CAAGATGTAA AAAATAGTCC TGTCCTCAGG
143101  GAGTTTAGGT CTTGGAGAAA AGAGACCCAA GGAGACACAA GACAAAGGGG AAAGAGAAGG
143161  AGCGCTGAAG ACTGAGGACC CTGCCTGTGG ACTGAAGTGA GGATGGGGAC ACCCGATGCC
143221  CGGAATATGA CAGTTTGGAG GGGCCTGAAG GACTCTTCTA TTCTCTATCA GAAAAACAGA
143281  ATTACTCTCC TAACCAGAAA AGGTATTTCA ATTTATATTT TCCATCACAG CACTTTTCTG
143341  GTGATAATTT AATGTGTTTT AAAAAATGTA TCACAGTGAT GGCCTGGTGT GAAATAAATA
143401  ATAAAATTTT AAGAATTAAA AAATATAAAA ATCTTTTATA TAGACATTAG GAGTTACAAG
143461  GATAACTGTG AATTATAATT AGTAATTAAA TTGAAATACT GATTATTTTC ATTTTTATTT
143521  AATTATTTAA TAAAACCTAT TTAACATTTA ATATTTATCA GTAATTAAAT CTAATTGTTA
143581  ATATTTATTA TTATAAATTA TTTTAGAATT AAAAATAAGT GTAGAAGCGA GGCATGGTGG
143641  CTCAAGCCTG TAATCCCAAC ACTTTGGGAG GCTAAGGTGG GAGGATTGCT TGAGCCCAGT
143701  AGTTCAAGAC CAGCCTGGGC AACATGGAGA AACCCTGTCT CAATACAAAA AAATGAGCCA
143761  TGTGTGGTGG TGCGTGCCTG TAGTCCCAGC CATTCTGGAG GCTGAGGTGG GAGGATGACT
143821  TGAGCCTAGG CAGTCAAGGC TGCAGTGAGC CCTGATCTTG CCACTGCACT CCAGTCTGGG
143881  CAACAGAGCA AGACCCTGTG TCAATATACA TATGGACAAA CTTAAAATTT AAAATGAAAG
143941  CATACTACTG ATACAGAATT GAGTAGAGAT GCAAAGCTAG TCCTATAACC AGAACAATAA
144001  AGATAAAAAG GAGAGTGGAA GAAGGTATGT CATGAATTTC ATGATAAATG GCAATTGCAA
144061  ATATCCTGTA GCAGAACAAA ACAACAAAAC TGTAGATAAA ACATATCCAA CCCTTTGGAA
144121  GGCCAAGGAG GGAGGATTGT TTGAGCCCAG AAGTTGGAGA CCAGCCTGGG CAACATAGTG
144181  AGACCCTGTA TCTAAAAAGG AAGAAAGAAA AAAAAAAAAA GGATGATAAA GTAGACAATA
144241  TTGAAAGCCA TTTTCTGCAA ATACATAGTG AATTTGATCA GTAATTTTCT TCCAACAGTG
144301  CAAAAATGAA TAGATATTAG TTGCCTGAAA TAAAAATCAA ATATCCAACA AAAAATATTG
144361  ACTATCTAAT AGTATCTAAG CTAGTAAATT TGGCCAGTTA TAAAATGTCT TAAATTTTTA
144421  TTTAAAAAAA GAAAACCATA TTTATAAGAA GAGGTGATAA AGAGAAATTA TTTCAGTTAT
144481  GAAGATTTTG TTAGAAAACT ATGAGAAAAA AACTATTTTT TGTTTTCAAA AAGTGAAAGA
144541  TTAAGTTACC AAACAGTTGC TAAAGAATAC CAGATGGCTG AGCGTGGTGA CTTATGCCTG
144601  TAATCCCAGT ACTTTGGAAG GCCAAGGCAG GAGGATCATT TTAGGCCTGG AGTTCGAGAC
144661  CAGCCTGGGC ACTGTAGCAA GACCCGTCTC TATTAAAAAA AAAAAAAAAA AAAAAAAAGA
144721  ATACAAGACC TTGCTAACAA TAGCAAAGAT CAATTAATTC AAAATTTGAA AAACTGTAAT
144781  TTATTTAGCT TTAGAGTACT CTCGTGATAT GAGATTGCCA AATTAATACT TTGGGTGCAT
144841  TTCTTTTCTC AAAGGACTTG CAAATTTACA AAGAAGTGTT GAAGAAAAGC CACACATTGG
144901  CAGGTAATGT TTGCAAAAGA CAGATCTGAT GAAGAACAAT ATTTTTAGAA TATACAAAGA
144961  ATACTTAAAA CTCAACAGTA AGAAAATAAC CTGATTTAAA GCAGGCCAAT GACCTGAACA
145021  TCTGTTCACC AAAGAAGATA CACAGATGCA AGTATGCATA TGAAAAGATG CTTGACATCA
145081  TGTCATTAGG GAACTGCAAA TTAAAACAAG TAGATACCAC TGCATACCTA GTAGAATGAC
145141  CAAAATTTAG AACACTGTCA GCACCAAAGG TTGCAAAGAT ATGTAGCAAT AGTAACTTGT
145201  TCATTACTGG TGAGAATGCA AAATGTGCAA TCACTTTGGA AGACAGTTTG GTGGTTTCTT
145261  ACAAAAGTAA CCATACTTTT ACCATAAGAT TCACCAATCA CACTCCTTAG TATTTATCCA
145321  AAGGAATTGA AAACTTATCT CCACACAAAA ACCTGCACAT AGATGTTTAT AGCAGCTTTA
145381  TTCATAATTT ATCCAAAACT TGGAAACAAG ATGTCTTTCA GTAGGTAAGT GGATAACTGT
145441  GGTACTTCTG AATAATGGAA TGTTATTTAG AGTTAAAAAG AAATGCATTC ACTTTGGGAG
145501  GCCGAAGTGG GTGGATTGCT TGAGGCCAGG AGTTTGAGAC CAGCCTGGTC AACATGGGAA
145561  AACCCCAATT AGCCGGGCAT AGTGGCGTGA GCCTGTAATC CCAGCTACTC GGGAGGCTGA
145621  GATATGAGAA TCGTTTGAAC CTGGGAGATG GAGGTTGCAG TGAGCCAGTG CCACTGCACT
145681  TCAGCCTGGG CAACAGAGCA AGACTCCTCT GTCTCAAAAA AAAAAAAAAA AAGAAAGAAA
145741  AGAAAAAAGA AAAAGAAAAA GAAAAGAAAC GATCAAGCCA TGAAAACACA TGAAGGAAAC
```

Figure 8 (Page 45 of 73)

```
145801  TTAAATGTAT GTTACTAAAA AGCCAACCTG AAAAGACTGC ATACTATATG ACTCCAACTG
145861  ATGCAGGGCA AGCAAGCCAA AAATTAGGGC TTAGCCCGGG AAGAATTCAA GGGTGAAGTG
145921  GTGGTGTTAG CAACTTTTAC TGAAGCAGCA GTGTACAACA GCAGAACAGG TACTGCTCCT
145981  TGCTGAGCAG GGCTAACCCA TAAGTAATGT GCCCAGAGTA GCAGCTCAGG GGCAGTTCTG
146041  CAGTAATATA CCTGCTTTTA GTTAAGTGCA TGTTAAGGGG GATTATGCAG AAATTTCTAG
146101  AAAAAGAGTG GTAACTTCGG AGTAGGTACA GAGGAAAGAA GTCGATAATG TCCTGTTGTT
146161  GCCATGGCAA CGAAAAACTG ACATGGCGCT GGTGGGCGTG TCTTATGGAG AGGTGCTTTA
146221  ACCTCGTCCC TGTTTCGGCT AGTCTTCAAT CTGGTCCGGA GTAAAGTCCC TGCCTCCGGA
146281  GTTCACTCCT GCTTCCTGCT TCACAACTGT ATGACACTCT AGAAAAGACA GTAACTATGG
146341  ACACAGTCAA AAGATTAGTT GATAGAAATT GGGTGACAGG AAGTGTTGAA AAGGCAGAAC
146401  ACAGGATTTT TAGGGCAGTG AAACTTCTGT GATACTATAA TGGTGAATAC ATGACATTAT
146461  ACATTTGTCA AAACCCATAG AAAGCACAAC ACCAAGAATA AACCCTAATG TAAATTACAG
146521  ACTTTCGTTG ATAATGACGT GTCAATGTAA GTTCAATTGT AATAAATGTA CTACTGTGGT
146581  GCTGGATGTC TATGGTGGGG GGACATTTTT GCTTCAATAG TTACAGTTGA AGTAAATGTT
146641  TGTGTTTCCC ACAATGCATA TGTAGAAACT CTCACATTCA ATGTGATGGT CTTTGGAGGT
146701  GGGCTCTTTG GGTGATAGTT AGGTTTAGTT GAGATCCTAG CAGATCGAGT CTTCATGATG
146761  GGCATGATGG GACTGGTCCC TTATAAGAAA AGACCAGAAA GCTAGCTCTC TCTTTGCCAT
146821  GTGAAGACAT AGCAGGAAGG TAGCCATCTG CAAGCTAGGA AAGGGCCTTC ACAAAGAATC
146881  AACTCAGACC TCAGAACAGT GAGAGATAAA TTGTCGTTGT TTAAGTCACT CAGGCTGTGG
146941  TATTTTGTTT CAGCAGCCCA ACCTAAGACT GTTAATTGGA TTAGAAATTT CCTTTTGGGG
147001  ATGGTGTGTG GCGGGCGGGG GGCGGGGAGT ACCTTTGTTA AGCTTTTATA TCAATGAGTT
147061  TGTAGGCTTT TCTTTTTTGG TCATTGACTA GGACAGTTTA AATAGTATGA GTGTGAAGGA
147121  GATTGTTGGT CATCTATTCG ATGTCCCTTC TCTGTTTTTT AATATGAGAA CTCCTGATTT
147181  TCAGCCAACT ACCCTGGAAA AAAAGCTAAT CTTTCTGACT TCTTAAGTGT GGCCATGTAC
147241  TAAATTCTGG CTAATGCAAG GCAAGCCAAA GGTTTTATGA TAGGTTTTAG GACACTAGAG
147301  TAAAAGAGAG CTGTTGCACA CATGCTCTTC ACCCTACTTT TGTGTCCTTT TTTCCATCCT
147361  ACAACTTGGG TTGTGAGTAT GATGGCTGGA ACTTTAGTGG CTCTCTTGGA TCCCAGGGGT
147421  AATTGAGGGG TGGCTGGAAG GAATCTGTGA TTTTCTGGAG TTTCCATACA CAAACAAGAC
147481  CTGGATTTTC TGGGCTTCCC AGACTTCCAC ATCTAGACTT GCTTTAAATG GGAGATAAAT
147541  AAACTTGTTT CAGCCACTGT CATTTTGGGC TATTTTATAG AACTTAATCT AATCTTCAAG
147601  GGTACATGAA TTGCTTTTCC TTAAAAAAAA AATCAGCCAT AAAATCATCT TCTTTTTTCT
147661  TTTGTTCCCC ACATTATTTA GTTGGAGCTC TGTAACTTTT TTTTTTTTTT TTTTTGAGAC
147721  AAGGTCTTGC TCTGTCACTT AGGCTGGAAT TCAGTGGCAT GACCATGGCT CACTGCAGCC
147781  TTGCCCTCCT AGGCTCAAGC AATCCTCGTC TCAGCCTCCT GAGTAGCTGA AACTAAGGCA
147841  CATGCCACCA TGCCCAGCTA ATTTCTTTTC TTTTAGAGAT GGGAGCCTTG CCCAGGCTAG
147901  TCTCAAACTC CTAGCCTCAA GTGATCCTCC CATCTCAGCC TCCCAAAGTG ACAGGATTAC
147961  AGGTGTGAGC CACCATGCCT GGCTGCTCTG TAAGTGTCTG AATTTCATTT TGTATTTATC
148021  AGTCTGTTTA GATTTTCTTT CCCTTCTTGG GTCAGTTAGG CCATTGGTTT CTTTTTAAAG
148081  GTTTTCAAAT TTATTTGCAT CTAATTCTTC AAATTACTCT CAAAATTATT CCAGTATATA
148141  TTCTTTTGTT CCTATTTTCT TCTGTATTCT TTATTAAAAT AGCTAATGAT TTATCTAGCA
148201  GGACTTATAT TCTTTCCATA ACTTTCCTGC ACCCCAATTA ATCTCCAATT TTATATTTCT
148261  TCTGGCCTTC CTTATAGTTT CCACAGGTTT ATTTTATTCA TTTTTTAAAA CTTTTATTTA
148321  ATTGTTTATT TTATTATCAT TCTTTCTTAT TCAGCAATCT AAGTGCTTAG GGATATAGAA
148381  TTTCCTCTAA GCAGCATATG CTAGGCTTTA ACAATGTTAG GGAGGCCTCC CCTTTCTGGG
148441  GAAGACCACA CTTACATTAA CACAGGACTG TGGGATGCCA AGAGGTAGAG AAGAGCTTAT
148501  GAATATCCAG ATTACATCTT CACTGATCCT GCACAAAGGT GGGGTTCCTC GGTTACCCAC
148561  TGGGTCCTAT TACCCAAGTC TGGGTCAGCA TACCGAGACT ACGGGTATAT AGAACAAGTG
148621  CAACTGGCGA TAATCCTTCT GTTGGGGAGA AAAATCTTTT TTTTCTATTC ATCTTAGGTT
148681  CTCCATCTGT GGCCCTATCA AGTAGACTAA CAAAAGACAG ATTGACAAGA CAGAAACAAA
148741  GCATGTGCAT TGTACAAACA CAGGGGAGTA CTGAGATGAA TACTCAAAAG AGGATTTAGA
148801  ACTTGGGCTT ATATAGCATT TTAAGAAAAG AATACATTTT TTAAGTGACA AGGAAGACGA
148861  AAAGGACTTT GAGTTTCTAG TGCAGTAAAT TGTGGGAAGG CAACTTTTTC TTTCCCTTTT
148921  TTTTTTTTTT TTTTTAAAAA AAAAGACTTC TCTGGTGCTA TGTCCAGGCT GATAAGAGTC
148981  TAAAGTCTCT GGTGACTAAC TTTTGTTCTT CCCCGAGTAA GAAGACACCT TCACAATTTC
```

Figure 8 (Page 46 of 73)

```
149041  ATATCCTGCT TTTAGGCAAA TAGGGAGAGG GCAGAGGTGT TTGTTTGTTT TTAATCTATT
149101  TTTTTTCTCA ATTGTCTTCA ACTCAAAATA CTTCTTATGC CAAAGATGGC ATATTCTGCT
149161  ACCCTTCACT TACTACTTAC AACCCAGCCT CTATCATCAT AATTAGAACT TCTGACCCTG
149221  GGGAACATGG GCAATAGTTT GAACTCTTTT ATATCTCCCT TAGGCAGAGA TGGAGGCCCA
149281  GCCATGCCTC TGACATCTAG ACACAACTGT TGCTTCATTT CTCCTATTCT CAGAGGTGAT
149341  GTTGTAGGAC TTCAACAAAT ATCAGTAAAC ATTAATTTTT TTTTTCCTTG AGGCACAGCA
149401  TGATCTTGGC TTACTGCAGC TGCTGCAGGC TCAAGCAATT CTCCTGCCTT GGCCTCACGA
149461  GTAGCTGGGT TACAGGCCCC TACCACCATG CCCGGCTAAT TTTTGTATTT TTAGTAGAGA
149521  CAGGGTTTCA CCATGTTGGC CAGGCTGGTG TTGAACTCCT GACCTCAAGT GATCCACCTG
149581  CCTCAGCCTC ACATAGTTCT GGGATTACAG GCGTGAGCCA CCATGCCTGG CCATCAATTT
149641  TTATGTCAAC TCTAAATTAT AACATTTAGC AATTTTGTGA CTTTTTATGG TCATCATTAA
149701  TGTTGTTTAT GTTTTAGTTG TAGTCCTGTC ATTACTCACT CGGGTATGGT AATTTGGTCT
149761  TTTTCAAAAT GAAGTTAAGG TCTATTTGCT CTTCTCTGAA TCATAATAAG AACTGCCAAC
149821  AGCCATTTCA GCAATAACTA TTTACTGAGA TTTTAAAATA TTTCAAGGTA ATTGGTCCTA
149881  GCAGACTGGA AAATACCAAA TTCTTTTCCA GAACTGAATC CCCCATCAAA GTTCAATTTT
149941  ACTCATAATT CCCTTTTCAT TTGAAGCATC TCATTGTAAG CCAGTCTTAA CCCTTCTCTC
150001  ACACTTTGCT TGGCTGTTTC TCAGGTAGAA CTCAGTAAGT CTGGTAGCCT CCAGGACTGC
150061  CGCTTAGATT ATTAAACAAC ATGTCAGTGG TTGGAAGAGT CAATGTTATT TTGATTTTTC
150121  TGTTTTGTTT TGTTTTAAAT GCAGTTGGCG GATAATTGCA GCTTTCTTTC ATTCCCTACA
150181  TGAGTTCAAA TGGCAGCAAA CAAACTAGGA GAACGCAGAC CTTCTGACTT GTGGGTACCC
150241  CTACTCATCA CCTGAAGACC CTTGGAAATC AAAGCCCTGA CCCATTAAAG ACGGATGGAG
150301  ACAGCAACAT ACGATCATCA CTATTATCTT GCTTTGCCCC AGTCCAGGTT AACCATCTGT
150361  GGTATTTTTA GTTGCTAAGT CCATATATTC AACATAAATC AATTATATAT CCACTAAAAT
150421  CTCAGCACTA GTCTAACTAC TAAGGAAATG ACAGCGAAGA AAACAGACCA AACGTCTGCC
150481  CTTATGGGAT TTATATTATT TTCTCTGTGC TGGTTAAACC AAGGAGCTTC TGCTCTTTTC
150541  CTTAGTCACC TGGGGGAGGC AGAAACAAAG GAGAATATTG ATAAACCTGG AAATAGGGCC
150601  GGAGAGTATC AGAGAAGGAA GCCTTCGGGA AAGTAAAGAT GTGGCAGCCA GTATTCCCGT
150661  TATAAAAGGA TACAACTCCG GCCTCATAGT CCAGAAAAAT TCCCACAAGC AGGGGCTGCT
150721  CATGCAGATG AAGGGAAGTT GGGGGAGAAG TAAGTGCTAC ATAGCCTTTC TTTTTGCACA
150781  GCCTGAGGGT CCAGAATCCA GACTGAGGCT CTTGCTTCAT GCCAGTGCCC CTCTGCACAT
150841  TTTCCATACA AACTCCTAAA TCCCATCCGG TTCCTTCGCC AACATCCACT TCAAAGTAAC
150901  GTCTTCCTGA GGTGAAGCCT TCACAACCCA AGACACAGGG GAAGGCAGTA AATCTCCTGG
150961  AAGATGTGTC CTGATTCTCC TGGGTGTATC CACGAGTCAC TTGTCTCCGA TCCTCAGAGA
151021  GAATTAGTTC GTGATGAGCT GTATCTGGAT CCAGAGTCAC ACTAACTGCA AAACAAAACA
151081  AAACAAACAA AAATAATTTT GTTGCTGTGA AGAACACAGG TTATTTTATT TTATTTTATT
151141  TTGAGATGGA GTGTTGCTGT CACCCAGGCT GGAGTGCACT GGCACTATCT CAACTCACTG
151201  CAACCTCCAC CTCCTGGATT CAGGCAATTC TCCTGCCTCA GCCTCCGGAG TAACTGCGAC
151261  TACAGGTGCG CACCACCACA AGTGGCTAAT TTTTTTAAAT TTTCTGTAGA GATGGGGTTT
151321  CGCCATGTTG GCCAGGCTGG TCTCAAACTC CTGACCTGAA GTGTTCCACC CACCTCGGCC
151381  TCCCAAAGTG CTGGATTACA CAGGTGTGAG CCACCATGCC CAGCCACAAG TTATTTTCAA
151441  TAAAACCAGC CTGTGTTCAA ACCCAACTAT TGTTTCTTAT AAACTGGGTG AGCTTAGGCA
151501  AATCATTTAA CTTTCTGAGC CTCAGTTTGT TAACTATAAA GTGGAAATTA CCGTATTTGT
151561  TGCAGAGAAT GGTGGGTAGG ATTGAATAAG CTTATGTTTG CTTAATGCTT GGTAAAATTC
151621  CTGGTACATG GTAACCACCT AATAAGTGGT AGTTGTTGGG GTGATCAGGC CCAACACCAG
151681  GCCGTGGGGG CTACAAAGTC CGGCGGGGTC AAAGGAATGA GAAAAGACAA GTTAAGAGTG
151741  CATAAAGTGG GTCCAGGGTG CCAGCACTAG ATTGGAGGCT GCAAAGGCCC TAAGCTCTGG
151801  GAGCCCACAC TATTTATTGG TGATCAAACA AAGAAGCAGG TGGTGAGGAC GTGAGGGTAA
151861  ACAGGTGAGG GCATGAGGAC ATGGGGGTAG AAAGGTAGTG GTGCATTAAG CGTAGCTGTG
151921  ACAGTTTAGC ATTTTCTTTG ACACATGTAG AATATACTCT GCTGCTTGAG ATAGTAGAGG
151981  ACACGTTTAT GAGTGAAAAG CAAGGAACCA ACAAGTCTGT GCACTTTCCA GAGGCTATGA
152041  GGGGTTTTAT GCCCTGAGCC CTGGGTTCCA TCCAAGCCAC AAGGGGTTTT ATGCCCTAGG
152101  CTTAGATTTG TGGTGCGGCA GGGCAGCCTT CCACCATTTG GCACAGAGCT TGGTGTTCCA
152161  AAGGCCACGA GGGGTTTTGG ACCCTGGACC CCGGACATCT TCCAAGACTC TTTTACATTA
152221  TGACAGACAA GCCAGTCCTG CTTCAGCTCT TCTAACAACA TGTAGTAATA ATGATATCAT
```

Figure 8 (Page 47 of 73)

```
155521  GGTGGCAAAG GGAGACCCTG TCTCAAAAAA AAATTAAAAA ATTAGCCAGG TATGGTGGCC
155581  TGTTCCTGTA GTCCCAGCAA CTGGGGAGGC TGAGGTGAGA AGATCACTTT AGCTCAGGTG
155641  GTGGAGCCAT GATCGCACCA CTGTACCACT CGGCTTGGGC AACAGAGTGA GAGCCTGTCT
155701  CGAAAAAACA AATATATACA CACAGTAATC AATATATATA TTATATGTAC CAATCAATGC
155761  TTCACTTTTA TATATAATAT AGATTACATC TTATTAGATA TATAGTATTC CTTCTCCATA
155821  GATAGATAGA TACAGATATA GACATAGTAT CCTCTATCCA TATTAGAGAG AGGATACTAT
155881  ATATATCTAT AGCATATAGA GATGCTGTCT CAAAAAAATT TAAACATCAG CCAGATGTGG
155941  TGGCCCATGC CTGTAGTCCC AGCTACTGGG GAGGCTGAAA TGAGAGGATT GCCATTGATC
156001  CTCTCATTGG TTGAGCCATA ATCGCACTAC TGCACCACTC AGCCTGGGAG ACAGAGGGAG
156061  ACCTGAGGTG GAAGGATATA GATATAGATA TATAAATAAA TATGTATAGA GAGAATATAA
156121  TATATGTGTG TATGTGTATA TATATATATT ATGAAGACAC TGGGAGAGAA TACTATATAT
156181  ATATGTGTGT GTGTATATAT ATATTATGAA GACACTGGTG GGATGGTTTC ATTACCAATT
156241  GGACCAAGAG TCCAGGTATG GAGCCAACAT GCAATGTTGT TGTTGACTGA GCTGGCAGAG
156301  CACTGGTCAT AGTTACGGGA AAAGAAGGTC TCCAATGAGA CATACTTAAC AAAATATATG
156361  AACTTGCCAT ATACGTGGAG AGTTCTGGTG TGTATATAGC CTTCTCTCAC CAACCTAGCA
156421  ATTGTCTTCA TCATCATTAT AATGCTATCA GAGCAAAGAT GACAGCTAAA TTTTTTTGTC
156481  CCTTTCTTCT TCTTTCTCTT CCTTCCCCTC CCCCACCTCT TTCTCTTCCT CCTCCTCCTT
156541  CATCTCTCTT CTTTTTTTTT TTGAGATGGA GTCTTACTCT GTCGCTCAAG CTGGAGTGCA
156601  GTGGCACAAT CTCAGCTCAC TGCAACCTCT GCCTTCTGGG TTCAAGCAAT TCTGCCTAAG
156661  CCTCCAGAGT AGCTAGGACT GCAAGTGCAC ACCACCACAC CTGGCTAATT TTTGTATTTT
156721  TAGTAGAGAT AGGGTTTCAC AATGCTGGCC AGGCTGGTCT CAAACTCCTG CCCTCAAGTG
156781  ATCCTCCTGC CTCGGCCTCC CAATGTGCTG GGATTACAGG CGTAAGCCAC TGTACCCGGC
156841  CTCCTCCTTT AATAGACAGG GTCTAGCTCT GTTGCCCAGG CTGGGTACAG TGGCGTGATC
156901  ATAGCTTACT GCAGCCTCGA ACTCCTGGGC TCAGGAGATC CTCCTGCCCT AGTCTCCCCA
156961  GTAGCTGGAA CTACAGGCAT AGCACACGGG GCTAATAAAA TTAATTAGGT GATAAAATTC
157021  ACTGCCCACT GATGACTAAG CTCTTTGGAC ATAAAAGACA CAGACCTTGA AGGAAAATGT
157081  GTCTACTTAA TTTTGAAACC CTATTTATCA AAAAACAGGA TGAAAATGCA AAATGCCATC
157141  CACATGCCAG AAGATATCAG CTATAATAAG TTCCCATAAA TCAATAAGGA AAAGAACCCA
157201  ATAAAAATTA TTAAACCACA GTAAATCATG GGTAAATCAC AGAGGCCTGA AGGGCTAATG
157261  GACATACAAA AAGAATCTCA ATCTCACTAG TGAAATCAGA AAAGCACAAA TTAAGTACAC
157321  AATTAGGTAC CATTTTAAAT CTGTAAGACT GTCAAAATCA TAAATTATAT AAGTAAAGAC
157381  TCAGGGAGTT TTGGAGGAGT GAGAGCTCTT ATATTGCTTG TGGGGTAGAA TTGGAACAAT
157441  TTCAAGATCT GTAGTATCTG GTAAAATTAT GATATGCATC CCTCACACCA GCATGTCACT
157501  CCAAGGTATC TCCCTGGAGG GAACATTTAC GGGACACAAG GAAGCATGGA TAAGAATGTT
157561  CACAGTAGTA TTGTCTGCAA CAGCAACAAC AACAAAAAAA CCCAACTACA CACAACTTCA
157621  ATGCCCAGTC CACAAGGCAA TGGATTAAAT AAACTTCAGG CCGGAGATGG TGGTTCATGC
157681  CTGTAATCCC AACACTTTAG AAGGCCGAGG CGAGAGGACT GCTTGAGCCC AGGAGTTCAA
157741  GACCAGCCTG AACAAAATAA AGAGATAGTG TTTCTACAAA AAATTTTTAA AAAATTAGCC
157801  AGACGTGGCA GTGCTTGCCT GTGGTCCCAG CTACTGGGGA AGCTGACGTG GGAGGATTGC
157861  TTAAGCCCAG GAATTTAAGG CTGCAGGGAG CCATGATGGG GCCATTGCAC TCCAGCCTGG
157921  GTGACAGAGT GAGACCCTGT CTAAAAGAGA TAAGTAAATA ACAACTTTGC ATTTTCTGCC
157981  ACATTGCAAA ATGGTGAGAG AGTGGTTTCT AGACTCTAGA CTCTTTCTAT GACTACCTTC
158041  TAGTTATGAG ATCCTACAAC ACTCACCTAA CCTCTCTGTG TCATATTTCC TCCTCTATAA
158101  AGCAAAAATG CCCCATATAG AGAGGACTGT GATATAAAAC AAGAACCAAG AAAAGTAAAG
158161  CTTTTCTAAT CTGTCACAGA CTAAAGAGTG CTCAGTATAT GTGAGTCATT ATTCCTGGTG
158221  CTGGTAGGAG TGTATGTTAC AACTTTGAGT CAAGTAATAT GGTACCATAT ATTAAGATTA
158281  ACAACAACCT CGGCAATCCC AGTTTGGGGT ATGTTCCCAA AAGAAATGAA AGCACCAGGA
158341  TATAAGGATG CATGGACTAG AAAGTTATTG TAGCAACATT GTAATAACTA AGTTCTAAAA
158401  ACAGCCTGAA GCTCCATCAG TAGGGATATG GTTACATATA TTTATTATAT TCTTATGGAA
158461  TATTAGACAT AAAAAGTAAC GAGTAACATA GAAGAGACAG TGTATATATG TTACGTTTGT
158521  ACAAACTTAG GGAAAGATAT AGATCACCCT ACCTAGAGAA GTCAGATTGG AGACGGGTGG
158581  GAAAAACCTT GAACTTTCTC CTTATATCCT TTATATTGTT TGACTGATTA AAATGTATTT
158641  GTTGCATCTG CTTGAAGGCA ATGTAAAATA AAATAAACAT ACATTTAAAA ATAAAAATAA
158701  AATTTATTCC TATCACTTTT GTAATAAAGC TGGGCACAGT GACTAACACT TGTAATCCTA
```

Figure 8 (Page 49 of 73)

```
158761  GCACTTTGGG AGGCAGAGAC AGGCAGATCA CCTGAGGTCA GGGGTTTGAG ACCAGCCTGG
158821  CCAACATTGT GAAACCCCAT CTCTACTAAA AATACAAAAA TCAGCCAGGC ATAGTGGTGC
158881  GTACCTGTAA TCCCACGCTA CCCGGGAGGC TGAGGCGCTG GAACCCAGGA GGCAGAGGCT
158941  GCAGTGAGCT GAGATTGCGG CACTGCAAGC CAGCCTGGGT AACAGCGAGA CTCCATCTCA
159001  AAAAAAAATT TGAAAAAAGA AAAATTTTAA TAAACAGTGT TTAAGAGGGG AGAAATATTT
159061  AGTTAAAAGA TAAGCCCATT TAAGAAATAG TTTCACTTGA CCCGGAAGGC GGAGCTTGCA
159121  GTGAGCCGAG ATCGCACCAC TGCACTCCAG CCTGGGCGAC AGAGCGAGAC TCTGTCTCAA
159181  AAAAAAAAAA AAAGAAAGAA AGAAAGAAAG AAATAGTTTC ACTTGAACCA TATTATGATT
159241  CCTTCTGTAA AAGATGAGAG TAGGCAAATT GACTCAGTGA AATCCCAGCA AAACTTACAC
159301  AAAGTCTTGT TCTTCCTTCC TGTCATCTGT ATAGGATGAA ATACAGAGTG CTTTTGGGTT
159361  TTGTTGTTGT TTGTTGTTGT GTATTTGAGG GGAACACAGG TCTATAATTC CTTTTCTGAA
159421  ATCCCTGGAA CAAAATGGGC TTTGCCATTC AAATTAGTTT AGAAGTTATA AAGGCAAAAA
159481  AATGCATATA CTCTAAAGTT CAACCCCATC ATGGCCTAAG GCAGAGCCCT GTAATCAAAT
159541  TCATCAATAT ATCTGCAGCA AAACATTTAT TCAAATTAAG TGGGATAAAT AAAGACTTTT
159601  AAATAGTCTC ATCTCAGTGC CGTTCAGGGT TGGCCACTGT GGAAGACAGA CTCAAGGGTG
159661  GCCTTCTATG ATTCCTGCCT CTTGGTGTTC ACACCCTCGT AAAATTCCTT GTCTTTGAGT
159721  GTGAGCAGGG CTTATGAATT GCTTCTGACC AATAGGATAT GGCAAAGATG ATGGGATATA
159781  ATTTCTATGA TTACGTTTCA TTATGTAAGA CTCCATCTTG CTGGCAGATT TTCTCTAAAG
159841  AGTCTGTCTC CTGAGCTCTC TCTGAAGAAA TAACTGGCCA TGTTAGAAGC CCATGTGCAA
159901  AGAGCTGAGG GGTGGCCTGT AGAAGCTGTG GGCAACCTCC AGCCAACAGC CAGAAATAAC
159961  CAGGGCCAAA GTCCTGCAAC CATCAGGAAA GAAATTCTGC CTGCTACCTC AGTGAGCTTG
160021  GAAGTGGATT CTTCCTTAGC CTAGCCTCCA GATAAGAACA CAGCCTGACC AACACCTTAA
160081  CTGCAGCCTT ATCAGACCCT AAGCAGCAGG CCCAACTAAG CTGTGCCCAG ATTCCTGAAC
160141  CACAAAAATT GAGATAACAT ATCAGTGTTG TATTAAGGTT CTAAATTATG GTAATTTGTT
160201  TGTACTAATA GATAACTAAT ATAACCACCA AATCATTTCA GGTTAGGCCA GATTTTTGTA
160261  GCCAAATGAA TCATGATAAA ACTTTCCATT TTCAGGGGTT TTTTTGATTT TGTACTTACG
160321  GATACAAATT TGTGAAAGTA TAGTCAGCAC TGATTTAAAA AATCAAGGGA GCAGGAAACT
160381  CAGTAAATGG TTCTAACATT TTGGAATCTG TAAATTGGTT GTAACATTTG TCATCTGTGT
160441  TATCTAAGTC AAGTTCCTAA AATATGTGAA TGATAGGTTA TCATACTCAC CTACTTTTCT
160501  TGCATTGCTC TAAGAGTTGG CTGAGCTATT GATAATAAAC ACTATGATCA GATCTAATAC
160561  CATGATGTGC TATTATGATC ATGTGTCAGT CACAGGGCTA AGCACTTTGT ACATGTTGAT
160621  GCATTTAATT TTGATGATAA CTCAATGAAG TAGGAGCTGT TAATATTTTC ATTTTTCAGA
160681  GGGGGAAACC AAGTCACTTG GAGTAACATG GCTAATAAGT GAAAGAATAA GAATTTGAAA
160741  GGTTTGCACA GATAACCAGA ATGCAATGCT CATCACATTC ACTGAGCAGT GAATCATACT
160801  AACTAGAGAA AGTATGAAAG CTCTACTGAA ATTAACTAAA CAACCTCTCT GGCTGTGAGC
160861  CTGCCAAGGG ACAGGTGGTA AACTTGGTTA CTGCATAAGG CCCCTTCTAT CCACAGTATT
160921  CAGGAATTCT TTAGTGAACA TACCTTGATG ACTCCTTAAC ATTTTCTTCA CATCGAAGTA
160981  AAGCTTGGAA ACATTGCACA TAGTATGAAG TTCCAAGGAG ACAGCCTCTG ATGTTTCCAG
161041  CTTCACAGCC CAACTCCTAG AATAAGCAGA GGCGAGAGAT TTCTTCAGAG GTGCATTCCA
161101  TTCATTTCTA TATACGCACA CCCCTCCCCT CCTGCATTCA AACAGGACTT ACCTGCTCAA
161161  AGTGTCATTC ACATTCTATA AAGAAACAAA AAGAAAAGGT GAGCATGGGA ACATCGGTAT
161221  TTCATGGGGC TTGTCATGCA GGGCTATTCT TCTTTGCTTT ACCCGAAGAA GTAAAGAGAG
161281  TTACCCTAGT CTTAGTCTTA GATATTGATG GATACTCAAA CAAAGTAATT CCCACCAGTC
161341  TTAGGTATTG ATGGATACCC AGATGGAATA ATTCCTACCA GCTTCTGGGA GATTCAGCAT
161401  GGCAGGATGT TTATCAACAT TTGCATCTAT TCTCATCCTT GCTGAAGTCT GAGGGCCAGG
161461  AGCTTTGTCC ATGCTCCCTC TGTAAGGACT AGCTTTTGGT GATCGGATTT CCTTCACAGT
161521  GAGCCCAGAT TAGAGAACAC TTATCATAAA GGTCCTTAGT GGTGAATCTG TGCACAGCCC
161581  TGAGACTGGG CCACTGCCAC TAAGATGGTG GTAGCAGGTA TCACACAGTG GTAAAGCAAT
161641  CATGCTATAC ACTCAGCCTT ACAGTATAGT CACCAATCCT GTTAGTTAGA ACCAGAATTA
161701  ATGGCTCCAG ATGTTTATCT TCCTACAGAT AAAGCTGTAG ATTGTACCAT AACAGCTCTG
161761  GAGCAAGGGT TCTACAAGCA AATCAGGGAA AAGGTTATCA CTCATTTTGG CTGCCCCACT
161821  TCATCACCCA TCAGTCACCT AGTGGAGTAT TTCAGGAGAG AGTCAACAAC CAGGGTTCTC
161881  TGCACATGGG CCAAGGAGGC AAACAGTGGT AAATGTTATC CCGTGGTTTC ATTTGGCCAA
161941  GCTGTGTTCC CTCAGAAGTT TATTTTTCTA ATTGACATAA AGGTACCCTA TAAATTAGTG
```

Figure 8 (Page 50 of 73)

```
162001  AAGGCCAGCC TGATGGCACT GATGTACATC TAAAAGAAAC ATTACTTTAT CTTCCCATGC
162061  TTCCTTACCA TTCTCCTTTA ATAGCACTAT AACATACCTT TTTTCCCTAC TCCAAGTACA
162121  CAGCCTCACC TGCAGCAATT TCTGGGCTGA GCCCTGACAT TTTTCCTCCA GTTCCAGGAT
162181  GTGGCTCTTG AGTTCATTGC TCTTCAGCCC CAGACCAGCC TCATAGTCCC TCAGTCTACT
162241  CAGAGTCTGT TGTTCTTCTT TCTCCAGCCT CCAGAGATAA GACTTCTCTT CCTCATGTAG
162301  GAAACACTGG AGATTCTTAA AGTCAGACCG GATTTTTTGT CTCTGAATCT GTACCTTCTC
162361  CTGGAGTCAA GAAAGTATGG TCAAAAGGTG GAAGTAAACC AAATGTCCAT CTATGGATGA
162421  ATGGATAAAC AAGAATGAAA GTCTGACACA CGCTACTACA TGACAAGCCT TGAAGACATT
162481  CAAGCAAAAT AAGCCAGAAA CAAAAGGGCA AATATTGTAA GACTTTGCTT ATACAAGGCA
162541  TCTGGAGTAG TTAAGTTCAT AGAGACAGAA AGTAAAATAG TGGTTACAAG GTGTTGGCAA
162601  GACCAGAAAA TGGACAGTTA TTGTTTAATG GGTAGTGAGT TTCAGTTTAG AAGATGAAAG
162661  ATGAAACTGA GTTGCAGTTT GGAGATGGGA ATGGTGATGG TTGCACAACA ATGTAACAAT
162721  GTAAAAGCAC TTAATTCTAC TGAACTATAT ACTTAAAAGT GGTTAAATGC TTAAGTGTTA
162781  TATATATTTT CACACAAACA CACACACACA CACAATCAGC CACTGGGACA TTATTTTCTC
162841  ATGAGTCACT GAAGCTGGAA GAATGTCCCC AGTTTCCTGC TGCAGAGTCA TGTGTGGGAG
162901  GCAGGCACTC AGATGTGGAA GAGGTTGCCT CAGATTCCTT ATAGTCACCC AATTAATTTT
162961  CTTGTTCTTC AGCCAAGACA CAGGAGAAAG CTGGGTTAGG AGTGCTAGAT AATTTAATTG
163021  TGAAACTAGG GCCAAGTTCA AACACTTTAT CAGTTACAAG GATAAAAAGA GGTTTTTACT
163081  TATGATTTAA GAAGTTAGAT TTCTGAGTTG GAGCGATTTT CTTGAAGTAA AAGCTTATAA
163141  TGAACATCAC CCAGACTGGA TTTTAAGACA ACCAGGCTGG TAAGAGGGTC CATAATTCTT
163201  GGCAGGGGGA GCTTTGAGTG TGACAGGCAT TTATTATGGT TAACTGAGAA ATACTGTTCT
163261  ACTACCCTAG GGTCATCTTA AGCATTCCTA TGTGTAAGAC TGACAGAAAT CAAGTGAAAC
163321  TCTCATCTGA GGAGATGTAA AGTTGCAATT TCCATTAGTG CTGTCTAAAT TAATGCAGTG
163381  GGAGTGTGTA TTCAGGGCAA TTTGAATCTA TGTTCTTGGA TTGCAGTCTT CAAACTTGGC
163441  CCAAATAAAC TCTCTACTTA TCTTAAAAAA ATAAAAATTA AAAAATAAAA ATAAATTCAT
163501  ACAGTGTTTT GATGACTATG ATATAGAAGA AGGGTCTTTG ACTTAGGATG AGGTGGAATT
163561  TTTGTGTAGG AGACAGGTGC AGCTTTAACT CTTGTATAGA CGGGTTTTCA TATATGTTAG
163621  TTACAATCAA GGTCTTCCCC ATTGCCCAAG ATCCTAGAAA TGGGGGAAGT AAGAGTGTAC
163681  TCAGGAGCTC AAGAGCAACA TCCACAAACA AAGATCAGGG TAGAGGTTAG AGAGGACTCC
163741  TGAAAGAGAG AAAATTGGTA ATCAGCTTGT GGGATTTTAC TGCAAGCTAG TGAATTATAT
163801  AAATATAAAG ATTGGTGCAA AAGTAATTGT GGTTTTTGCC TTTACTTTAA TGGCAAAGAC
163861  CGCAATTACT TTTGCACAAA CCTAAATATT TCCATAAAAG AATGTGGCTC TGATAATGTG
163921  GAGGTTAGTC AGCCACGGAA ATAATCTGAA AGTTTGTAGT TGCAAGTGTG TAGGTTGTTG
163981  CATTACTTGT GATGTACTTA TAAATCAAGT ATAGGCCGGG TGCAGTGGCT CACGCCTGTA
164041  ATCCCAGCAC TTTGGGAGGC TGAGGTGGGT GAATCACGAG GTCAGGAGAT CAAGACCATC
164101  CTGGCCAACA TGGTGAAACC CCGTCTCTAC TAAAATACAA AAAATTAGCC AGGCATGGTA
164161  GCACATGCCT GTAATCCCAG CTACTCAAGA GGCTGAGGCA GGGGAATTGC TTGAACCCGG
164221  GAGGTGGACA TTGCAGTGAG CTGAGATCGC ACCACTACAC TCCAGCAAGA CTCCATCTCA
164281  AAAAATAGTA ATAATTTAAA AATAAATAAA TAAATAAAGT ATATTTCTTT CATCAGCTTC
164341  ATGAGCTAGA GTAGTATGAA TTTCAATCTG GAGTGATCCT GTTTTCTAAG TGTTCACAAA
164401  GCTTGGTTTC TGTACCTGTA AAGTTGAGAG CCAGATGCTC CACTGTGGTA AAAGTGCCAG
164461  GGTAATGAGT TGAGGCCTGC AAACCAGGTT TATTTTGACG TATTTAAAGT TTGAGACCCA
164521  CTCGATGCTT TTTCTAGGTA AATAGTCATA CTAATTCTGC TTCTTCTGAC TGAAGTATCA
164581  GGAATCCCAG CCAACTACAG TTTAAAGATG GAAAGATTGG TGCTAAATAC TCATGGATGT
164641  AAACCTGGAA CCAGGGGCAT AAGTACAAAT AATGGTTTCT TCCTTGGGTT TCATTTTTTC
164701  AATCTGGTTT AGTGAGAATA AATCCTCATT GTGCTTTTCC TCAATCATCC CCTATGCCTA
164761  AGCTCTAGAA TGGAAAATAG CTTGAGATCA ATGAAGTCAG ATTCTTACTT TCCATTTAGT
164821  TATTCGCATT GCTGTGGACA GCTTCTGCTC CGTACATCTG TCTTCAAGTT GCTTCAGTTT
164881  TGTCACAGCT TTCTGGAGCT TTTCCTGAAG GAAAAATTTG ATAAGTGAAG CCTATTCAAT
164941  TTGACTCTTC ATTAGGGACC TAGGGGGAAT CCCAATCTTC TAAGATATAT TTGAATAATA
165001  GTGAATATTT ATAGAGTCCT CATTGTTTTT TGCTAGAGAG CATGCTAAAG GCTATATGTG
165061  CAGGAACATA CTGATCCCCT TGGCAACCCT GAATAGTTGG TAGGATTTTA AACTTCATTT
165121  CTGTGCTGTA GAAAATGAGA CTAAGAAAGG GGTAAAATAA CTTGCCCAAA GGGCTATGAC
165181  TGCCAGGTGG TGGAGCAACA ATTGCAATCT CATCTGCTGA CCCAGAGCCT GAGCTATGTC
```

Figure 8 (Page 51 of 73)

```
165241  CACCACTAGA GTCCTGCCAG GAAAAAGTTG GATATAGAAC AAGGTAATCA TCATCTAAAA
165301  GATTTTGTAA AACAACATGC TGAACCAAGC AAAACCAATA CCAGTGTTTG GCACACATGA
165361  AATTTTGTGT CTTATGAGTC AGGAAAAATC AGGATGCCAG CTGGTTATTA GAAACAGTTC
165421  ATGGAAGAGG GGAATTCTGG TATCTTTTGA ACAATGGTAT CATGAATCCA ATTTAAAATG
165481  ATTTAGTATT CATGTCAAGC TTTTAGCTTA TTCTTCAAAA CAGTTTCTCA TATTTCTATT
165541  GAAAGTGATT TGAAGCTGAC CCAAATTGCT AATTGTAGTC AATGCTGAAA GAATTGTCTC
165601  CTGTCCTCTG TAAACCCAAC AAGTATACTC ATTCATTCTC GAGTGTTCTC AGGAAAAGGT
165661  TCTATGTAAC TGTTTTAGCA AAAGATGACA TTGTCCTTAC TATATGCCAA GTGCTATTCT
165721  ATGCATTCTA TATTTTAATG TCCTCAAAGC TTATAACCAC CTCCTGTGTA TGTGTTTTAG
165781  GGAGGGAGGA CACTGCTATT ATCCCCATTT ACAGATGGAG AAACCAAGGT GTGAAGACAT
165841  TAAGTAACGT GCCCAAAATT GCCCATCTAG TAAGTGACAA AACTCAATTT CAACATAAGC
165901  TGGTTCCTTT TCTTACTACT TGGTGGAAAA GTAATTCAAA TGGGAATATG ATCATCGCAG
165961  TTATTAGCTG CTCCATGGAG TTTAAGGAAG AGCTGCCATG AGCTGAGTGG TGGTCATGAT
166021  TGACATGTCC TTAGAAGGAC TTAGAGCCTT CATACAAGAC CACCTCTGCC TCATGGAGGA
166081  CAGAATAAGG AGCCTGACAC TGGAGACAAC ATTTTCCTCA AATTTAGGCA GGACAGAGAA
166141  GGAAAAAGGA CATCAGGACT ATGCCCATTC CTCCATGCTG CCAACAGCAA AGTCCCACCT
166201  TCCTTAATAT GCTTTCTGGC AAGAAATCTG GATGGTACAC AAAACCTCTC CCTCTGCTTC
166261  ACCTTCCACA ACCAAGCATT TCCAAATCTT TGACTCTTCT TCCTGAATCG TGCTTAAAAT
166321  CTGCCCTCTC CTCCCTTTCT TATACGGATA GTTTGAATTT TACTCCTTGA TATTCCTTTT
166381  ATCATAGACA TGCCACAGTA GCTGGGCACA GTGGTTCATG CCTCTAATCC CAGCATTTTG
166441  GGAGGCTGAG ATGGGAGGGA GACCAGGGGT TTGAGGCCAG TATAAGCAAG AAAGGCAGAC
166501  CATGTCTCTA CAAAAAATAA AAAAATTATC CAGGTATGGT GGGGCATCCC TGTAGTCCTA
166561  GCTACTTGGG AGGCTGAGGT GGGAGGATTG CTTGAGCCCC AGAAGGTTGA GGCTGCAGTG
166621  AGCCGAGATT GCACCATTGT ACTCCAACCT GGGATACAGA GCAAGACCCT ACCTCAGGAA
166681  AAAAAAAAAA AAAAAAAAAA AAAAGTAGAG GTACCAGAGT GATATTTTCA ATGTCACTGA
166741  CCCTTCATTC CCCAAATGAA AATCCCCCAA TAGGTGTTCA ATTTTTACGT GTCCTTCAGG
166801  AGTTACTTCT AAGATGAACC ACTCTCTACC CTAAATGTCC CTCCCCACCA CCAAAACCAG
166861  GGACCTCCAG GCAGACATTT TTGATGGTTT GTTTTCTTTA CTAGACTGTA GATACCTAAA
166921  AGGTGATGGG TCTTTCTTCC CTGTTTTCAG GCCCTACTGC ATGGCTTTAC ATATTGTGGT
166981  TTTTCAAATG ATATTCATGG TGTGAAACAA GAAAAAATGC GGGTGTTTGG TTTGAGAACA
167041  ACCTGTTCTA AAGCAAAAAG AAATTCATCA TAACACAAAT GGATAGAGAT AAGAGTCCAA
167101  CCATCCCATT GAAGGTCAGG ATGGACAGTC TAGATAATTG AGCAAGAAAT CATCATAAAC
167161  TATTTTTCAG AAGAATGACA TGATGAAAGC TGTATTTCCA AGTCATAATG TTAGGTTTCA
167221  AGTTAAATCA TCTCAGCTCC TGGGGAGCAG GATAAGACTT GGTACTTACC AAAGCTCCCG
167281  GGCCCACACA CTCACCTTGT AGCCCTGGCA TACGTCTTCA ACAAGAGCTG TGGTGTGCCC
167341  TTTGTGCTGT GGTGCCCGCT CACAGCGCCA GCAGATGAGC TGCCCCTCGT CTTCGCAGAA
167401  CAGGTGGAAC TGCTCTCCGT GTTCCTCACA TGACATTTCT TGATCCGTCT CTTTGAGGGC
167461  TTCAATGAGG CTTCCCAGCT GCTTGTTGGG TCGGAGGCTA TCCATATGAA ATGGAGCCCG
167521  ACACTGGGGA CAGCAGAATG TCTCCTGCCT CAGTTGCTTT TGGCTTGGGT TTTTAAAGAA
167581  GTCTGTTATA CACAAGTGGC AGTAGCTGTG TCCACAGTTG ATGCTTACTG GGTTCGTCAT
167641  CAGGCTCAGG CAGATGGAGC AGGTGGCTTC CTCCATCATC TTCTTGGTGC TGGTGGTTGA
167701  GGCCATAGCT TTTATTGAAA AGCTCCAATA TTGGCTCTAG AGATGGAGAT GAAGCAGCCA
167761  GAATTTTCCA CCGTGATGAA AATACACCTC ACCTGCACCT CTATGTGATG AGCTGGCTGC
167821  AACTGACTTC CATAGGTCTT GAAGGTTTTC CTTCCAACCC CTATTATCTC ATTTTGTATT
167881  GAAGAAAAGA GGACCTAAAA GGAAGAAGTT GAGGCTGAGG TTGTTTGGGC CACGTTTGAG
167941  AACTGCAACC CAAGTGCAGA GTTTCAAGTT GCCCTCATTA GCAAGCAGTT ACAAGTGGTT
168001  GTTTAGAGGA AAAAAAGCAG TTTTAAAGCA GTTTTAAAGT TGTTTGCCAA GAATTTACAT
168061  TAAAATAGCA TAAGCTTTTG ACTGGCTATA CATTGTTCTT TGTATTACAA ATCTCGGGAA
168121  TATGTAGGTA ATAGATGAGG CAGCCAGTCA GGAACAAAAT GCTTTTAAAC ATGGGGTCTT
168181  AACTGAAGAC CTATACTCCT GCCTCACTTG TCCTGATAAA TTTTGCATAC CTCACATAGC
168241  TCAGACTGCT CTAAATTATT TCATTATTTT TCTTTTCTCA GTCTTCTAAC TTTTTTTTTT
168301  TTTTTTAATG AGACGGAGTC TCACTCTGTC ACCCAGGCTG GAGTGCAGTG ACGCTATCTC
168361  GGCTCACTGC ACCTCCGCCT CCCGGGTTCA AGCGATTCTC CTGCCTCAGC CTCCCGAGTA
168421  GTAGCTGGGT CTACAGGTGT GCACCACTAC GCCCAGCTAA TTTTTGTATT TTTAGTAGAG
```

Figure 8 (Page 52 of 73)

```
168481  ATGGGGTTTC ACCATGTTGG TTGGCTCGAT CTCTTGACCT TGTGATCCAC CCGCCTCAGC
168541  CTCCCAAAGT GCCAGGATTA CAGGCATGAG CCACCGTGCC CAGCCTCTTT TTCTTTTCTT
168601  ATAAGACAAG TTCTCGCTCT CTTGCCCAGG CTGTAGTGGA GGGCAGTGGC ATGACCACAG
168661  CTCACTGCAG CCTCGACCTC CTGGGTTTAA GCAATCCTCC TGCCTCACCC TGGCAGAGTG
168721  GCTGGGACTA CAGGTATGTG CCACCATGTC CAGCTAAAGT CTTCTCTCCA GAAAGAAGAA
168781  ATGCATTGGA ATTTAGAGGA TACACAAACA TCTAGCTGTA TAGCTAATAC AGTAGCCACT
168841  ATCATGAGTA GGAATTTAAA TTTAACTTAA TAAAAATTAA AATGAAAAAA TTCAGTTTTT
168901  CTGTTCCAGT TGCCACATTT TGATTGCTTA ATAGTTGCAT GTGACTAGTG GCTACATAAC
168961  AGCCTCAATA TACAACATTC TGTTATCACA GAAAGTTACC TTGGACCAAG TGCTGGGAGA
169021  AGCAATGCAG GCTTCCTCAC AAAAGCTGTA AAAGAGAGAA CTCAGGGAGT GTGAAACTCT
169081  TTCCTATTCT AGTTAACTTC AAGAATAATT GTTACCAGGC CAGCACGGTG GCTCACGCCT
169141  GTAATCCTAG CACTTTGGGA AGCCGAGGCG GGCAGATCAC CTGAGGTCAG GAGTTTGAGA
169201  CCAGCCTGAC CAACATGGCA AAACCTCATC TCTACTAAAA ATACAAAAAG TTAGCTAGAT
169261  GTGGTGGTGC ACACCTGTAA TCCCAGCTGC TCAGGAGGCT GAGGAAGGAG AATGACTTGA
169321  GCTCCGGAGG GGGAGGTTGC AGTGAGCCCA GATTACACCA CTGCACTCCA GCCTGGGTGA
169381  AAGAGCGAGA ATCTGTCTTA AAAAAAAAAA AAAGAATAAT TGGTACCAGA ATTACTCTTT
169441  GTAATTAGTA GTAACACTTA TGCAATTGGG TGATCTGTGA CAGATTCCAT TGAAGGAGTA
169501  TGGGGAGCTT CACCCCAATA TATGACTCCC TGGTATAATG AGTATTTTGA ATTAAAGGCC
169561  CTTAGAGATC AGCAGATGCT GGAAGAGACT TTTCCCCTAT CTACATAAAG ACCAGTCACA
169621  CTAGACAAGA AGAACAATTG TTTTTCCTTC CAACCCCTAT TATCTCATTT TGTACTGAAG
169681  AAAAGAGGAC TAAGAATGTA ACCAGACCTA ATCAGACACT TTCACAAAAT AATGTCTGTC
169741  TCTCAGGCTC ATTCATTTTC CAAAGAGAAC CATTTACAAG TTAAACTCTG TTCCTCCATT
169801  CATTCATCCT CCCAAATATT CATTTATTCT CCCTAGTAAT CATTTACTGC CCCTCAAAGA
169861  ATTACCTATA TTCTCCTGAT ATCACCCTTC CCCTCTGAAA TAAATATGTA TACATGTATA
169921  AACGTTATAC ATACATATTT ATACAGTATA CATACATATT TATACATACA TACATATGCA
169981  TACATATTTA TATTTATGTA TTTATACATA AGTATTTATA AATAAGGCTA TATAAGTATC
170041  TACCCCCATT GGCAGAGGGG GTAATCACTC TGTGATTCTA GCCCATGTAC TTGTTAATAA
170101  ATTTGTATGC CTTTTCTCCA ATTAGCCTGC CTTTTGTGAG TCGATTTTTC AGTGAACTTC
170161  AGAAGGCAAA GGGGAAGTGT TCCCTTGGCT CCTACACCAT CATGACAATA AAATTTGACT
170221  CCACCTCGAC CCCCCCCATC CCCCACAAAG AACAACAACC AACACTGGTT AATAAGGTCG
170281  GTTGTTTTTT GTTTGTGTTT TTGTTGTTGT TGTTTTTGCT TTCAGGAGCA GAGGTATAAT
170341  AGGCAAAAGA AAGAGAAAGG AGAATAGTGA ATACCTCTTC TGCAGAGAGG GGTGCCTAAG
170401  TGGGACTTCC CTGGCTAATA ACGTCTTGCT AGAGACCCAA CCAGGAGGAT AATGGAAGCA
170461  ATCAAGGCAA CCAGAACAAC CAGAAGAACC GGTTTATCCT TTTTGTGCCC TCTCCCTAAA
170521  CTGAGGGAAT AAGAATTGGA AAGAAGGCTG CAGAGCAGAG GGTTTGCTCC TGAGGAGCAG
170581  TTATTTCTAT GGGATCAGAG CTCCTGCAGA ACTGGGGAGT TTACTTTTAC TATCTCTTCT
170641  CCAGGACAGG ACCTATCTCA AGAGACATGT TCAGAGTGAT TGCAACATAA AGAGTTTGCA
170701  GACCCAAGGA GGTAGGGAAG GCAGAAAGAA GATGGGGGAG GCCAGGGATA GGCAACAGAG
170761  GAGTGACCAG GAGCGAAAAA GCCTGCCTCT TCTGAGAACC TAGCTGGGCT CTCCCTGTAC
170821  CCCCGATCCC TCCCCCCCGC CCGCCCCCAC ACCCCTACTC CTGGGAGCTC CTCTAGGACA
170881  GGGGCAGAGT CAGGAGGAAG TTTGAAGAGT GCCTAGAATA AAAAACAGTA ATTTAACTAC
170941  AATTACCGGG TAGGCTGTTT TCCTCTCACA ATTTGATCAG TCTCTTGAAG CCACACAGAA
171001  TTTCTTCTGA AGACGTGTAT TCCTTGGCAG GCTATTTCCT CCAGTGATAC ACCAGGCCCC
171061  TCTCTGCTGG GGTCACTGCT CTTCTGGGGA GATGGGGCTC CCCTCCTTCC AAGGCTCCAG
171121  GGTTCCTGTC CTGGGCCCCA CTCATCTAAG TTCTGAATCT TCTGAGATTT GGTGTAAAGT
171181  CTGGTGAAAG AAAGAGCAGG AAAGAGGTGA GAGCTGTAAA ACAAAGAAAG TCCTGACCAT
171241  TTTCAGAGTT GGAGGGGCCC TGCTGTCACG AAATATATTC CCCACCCCAC TTGCCATCAG
171301  TACACACTCA CATATCCACT GAGAAAACCT TAGCCTGGAC CTTTTCCGTA ACCTTCACTG
171361  CTCAGACACT TACATATTCG CTGCTAGTCC CCTCTGTTGC TGCCACTTCC TGGGTCAGGA
171421  AGTTAACTCA GACCGGATTA AACTGAGAAG TGAAACTACT GTGGGAGGCG GGGCTCATAA
171481  GATTTAGGAG AAAACTAGTG ACGTTGTTCA TATCATTTGC ACTCCGCCTC TCCGGTAAAG
171541  GAGGGGGAAA CGTAGGAAGA AAATATCCTT CTTTTACAGC AATAAAAAGA AGGAACCAAT
171601  TAATAACCCT GTAAACTATC ATGTGACCCC AACACAGAGT ATCTAAAAAC AGGAAGCCTG
171661  CAGAGGTTCA GTTCACAGAC TCTGATTTGA GATCTTTCTA CTTTTGCCAC CAACTCCCTT
```

Figure 8 (Page 53 of 73)

```
171721  GGGAGTCCTT AAGCCTTCCT AGCTGATGTT ACTTCTTTTG CTATTTATGG GTTGCTTGTG
171781  GTTCTATAAC TGCTCTGAAG GGTGTGGTGG AAAAAGGGGT GGTAACAGCA GTAGGACTCA
171841  TTGGCATCAC AAAATTCATC TGAGTCAGCT TTCTATTCTT CTCTGTCCCG TTCTGTGTCT
171901  TGTTTTTCTC CTTGCTGTCC TTCTGCAGGA CTCAGATCTT CTTCAATAGC GAGGGTCAGC
171961  CAGGATAGAA AATGGGAGTC ACTAGTGGCC CAGCAGTGAG TGCCCCCAGC TTAGAGCTGT
172021  GTGGGATCCC TGGGACCATC ACTCTGCTTT GTGCTTTGTG GAGAAAAGGC TGTGGGGTCC
172081  AGGGTCAAGT CCTTAATGAC TTAGCTCCAG CTTCTCCACT TCAAAATGAA AGGAAAAGTA
172141  CTATCACCAC CCGTTAGAAT TATTATTTCA TGGGGAAAAA AGATGGATTA CTATCTCACA
172201  ATAAGAGCTT GTCACATTTA TAAGTCTCAG GTGTAAGAGG CATTTATGAT AACAACATAA
172261  TAAATGCTGG CTTAAGTAGA TGCAGTGGTC CAAGGGAACC AGTAAGGGGA GCTCAGGACA
172321  CAGGTGGGAG GAGAAATTAA ACTTGAATTC TGGGAGCCAC TGGCCTGTCT GGGCCCCTGG
172381  CCTGCCTGCT GACCCTGATA GCCAATGGAA CATGGAGTTT GGCCCAGCTG CAATCCCTCT
172441  GGTCCAACTA CTCAAAATAA AGGCAAGATT GGGAAACACG TTCCTTTCTT CCTATACCAA
172501  GCAGAAGACT CTTCAGCACT GCACCCTCCT GGGTGCTCAC AGAGCCTTCT GTTGTTTTGC
172561  CACCTACGAT TCATCATGCC CTGGCATGAT GGTTGCAGAC CCCATGCATA GCATGGGACA
172621  TTCTACTCCT GAGGCAACCA GCACACAGAG AGAGGAGAAA GAATGAGCCC CTGAATCCTT
172681  GGTCCCACGA TGAGTCCTTG CAGATATCTA CAACTTTCAT TGTTGTGGAT GTGACTCTGT
172741  ACCCAGGCAT GGCTCATTCC AGATCTGTCC TATTGTCAGA GGTGTTCAAA CCAGAATGAC
172801  TCCATTTTGA ATGGGGGCTA GGTAAAATAA GGCTGAGACC TACTGGGCTG CATTCCCAGG
172861  AAGTTAGGCA TTGTAAGTCA CAGGATGAAA TAGGCAGTTG GCACAAGACA CAGGTCATAA
172921  AGATCTTGCT GATAAAACAG GTTGCAGTAA AGAAGCTGAC CAAAACCCAC CAAAATCAAG
172981  ATGGCAACAA GAGTGGCCTC TAGTCATTCT CATTGCTCAT TATACACGAA TTATAATGTG
173041  TTAGCAAGTT AGAAGGCATT CCCACCAGCT CCATAGTGGT TTATAAATAC CATGGCGATG
173101  TCAGGAAGCT ACCCTATATA GTCTAAAAAG GGGAGGAACG CTTGGTTCTG GGAATTGCCC
173161  ACATCTTTCC CAGAAAACAT ATGAATAATC CACTCCTTGT TTAGTACATA ATCAAGAAAT
173221  AACTGTAAGT ATCTGTATTA GTCCATTTTC ACACTGCTGA TCCAGACATA CCTGAGACTG
173281  AGTAATTTAT ACCAGGAAAA AATGTTTCAT GCTCTTACAG TCCCACGTGT CTGGGGAGAC
173341  CTCACAACCA CAGCAGAAGG CAAGGAGGAG CAAGTCAGGT CTTACATGGA TGGCAGCAGG
173411  CAAAGAGCTT GTGCAGGGAA ATTCCTTTCT ATAAAACCAT CAGGTCTCAT GAAACTTATT
173461  GACTATCATG AGAACAGCAG TATAAATTAC TCAGGGAAAG ACCTGCCCCC ATGATTCAAT
173521  TACCTCCCAC CAGGTCCCTC CCACAATATG TGGGAATTTA AGATGAGAGT TAGGTGGGGA
173581  CACAGCCAAA CCATATCAGT ATCCTTAGTC CAGAAGCTGA TGCTCTGCCT GTAGAGTAGC
173641  CGTTCTTTTA TTCCTTTACT TTCTTGCTTT CACTTTACTG TGTAGACTTG CCCCAAATTC
173701  TTTCTCACAC GAGATCTAAG AACCTTCTCT TAGGGTCTGG GTTGGGACCC CCTTTCTGGT
173761  AACACTATCA AAGGATCAGG AAAAGGAAGC TAGTGAATGC TAAAAAGGAA ACAAACTACC
173821  ATTACCAATA ATAACAGCAA GACAAAAGCA AAACGGATTG TGACAGCTGT CCCATCTCAC
173881  ACCTGTTTCC CATTGCAGGA AGGAGGGGCT GGTTCATGCA CAGAGTGGCC AATATTAGAA
173941  GCAGAGATGG GGTGCAGATG AGACTTCAGG AATATGTTGA CAAAGGCAGG CCTAGGGAGA
174001  AATCAACCTG AACTATCCCC AAGGAGGAAT GCATTATCTC TAATATGTAA AGTTAGGCTT
174061  GATCCTGTGA TTATGGGATA TAGGAGTCCA AAGACTCACA ATGGGAAGTA GGTCACTAGA
174121  GTCTCCTTCA GAAGCTCTGT ACTGTGTGTT CCCACTGTGG GCAAGAGTCA GCACTCAGCT
174181  ATTCCTAGAA TGCCTTTCCT CAACTCCTTC AGATTTTGCC TCTCAACTAA CCCTATCCTG
174241  ACCACTTGTT AGCAAGTGTA CCCCTCTCTC CCTCCCAAAC ATTTTCAAAT CTATTTTGTT
174301  CCCATGGCAC TTATCACTGA ATATTTTACT AATTTATTTT GTTTAGTGTT TGCTTCCCTC
174361  ATGAGAATGC AAAGGGATGG ATTTTTTTCA ATATTGTTCA CTGATGAATC CCAGTAACTA
174421  GAATATTTCT AAGCATAGTG ATGTGCATTA AATCAAAGAG TAACTTTCTG AATTGCACTA
174481  AACACACATC ACAAGAGGTG TGTGCACATA TGTGCATGAT GCACGTAGTG TGGTGTGGGT
174541  GTTGTGTGGG GTATGTGGTA CTGTGTGTGC TGTGTGTGGT ATGTGATACA TAGTTTGTGT
174601  TAGTGTGATG CATGTGATGT GGTATGTGTG TGCGTGTCCA TACATATTAG GGGTGGCGGG
174661  GATGTTAATA TGTCAAATGG TACTAGAAAG TATCAGAACT CATGGTGCTT ACTGGTTTCC
174721  CAGAGAGCTG CTTCTCTCCC ACCTGTAGGA TATACTGATG GTTTGGACAG AGAAGAAATA
174781  AAAAGAAGGC TGTGACCTAC TGGGCTGAGG AAATAAAAAC GAAAGTAAAA GAAGAGCTGG
174841  GAAAAGAGAG TGGAGGGGCC AAGGGAAATT TCCCCTTTGG CTTCTGGGGA AACTTTGCTG
174901  AAAAATCAAC TCACAAATTT ATTAACATGT ACACAGGGAG AACCATAGAA TGATTATCCA
```

Figure 8 (Page 54 of 73)

```
174961  CTTCCCAAGA GGGCTTAAAA GCTTATATAT TATCCTGGCA AAACAGATTA TGGGAGGGGA
175021  AGAAGAGAAA CTCTGTTGAT GGGATTACTG TTGCGGATTT TTGCTCCTTC GCTCAGCTAG
175081  GTCCGGGTTT TTGTCTCACA GCCAGGAAGA ATTAGGCATG CAGCCATCAA AGAATGAGTG
175141  GAGTAGAATT TATTAAGTGA AAGGAAAGCT CTCAGCAAAG ACAAGGGTCC TGAAAGCAGA
175201  TTTCTGGTTT GCTCTTCACA GTTGAATACT AGGGCTTAAG ACTCAAATTC CTGACAACTC
175261  CACCCTGTCC TACCAGTGCA TGCAGGCCTT TAGACTGAGC TACTCCATAT TGATTAATTT
175321  CCTGAACTGT GCATGTGTTA AGGAAAGGAA TCATCCACTG CAGGCATGTT TAGGCAAGCC
175381  CCCTGTGCAA GTTCCCTTAT CTGCACAAAA CATCCGGTGT AAGCACTTGT GGGGCAGGTC
175441  AGAGGTTCTC TGGGTACCAT TCCCTTACTG TCTGCCTAAA GCAAGCTGGC CAACTCCTTT
175501  CATTACTAGG GAGAGTAAGT AGATCAGGGA ACAGAGATTA ACTTGAACAT TATCTTGTGA
175561  AAGTCCGTTC GGGCATGGTT ACATTCTTGG TCTTACAGGA AGGGTAAATA AAAATAATTG
175621  CTCTTTTTGG TGGGTCTGGA TCTTAGGTAG ATAAAGAAAC TTTAATTCCA CGATGTGTTT
175681  TGGTAGGGAT AGTTGGTGGC AGGGATGTCA GAGAGACTTT GAGGCTTCTT CAGTTCAATA
175741  TGACCAAGGG CCATATATTA GGGTATCAAT TTCTGAGCCC CAACAAGAGC TTAGGAGAGA
175801  TGTGATAGCA TCACAGTGTG AAAGCAATTT TTTGTTTGTT TTTAGAGACA GGCTCTTGCA
175861  CTGTCACCCT GGCTGAAGTA CAATGGTACG ATCACAGCTC ACTGTAATCT TGAACTGGGT
175921  TCAAATGATC CTCCCATCTA AGCATTTCAA AGTGTTGGGA TTACAGGCAT GAGCCACGGT
175981  ACCCAGCCTG AAACTGCACC CACTTTCTGA TAAACTTTTC AAATGACTAA AGGGGAGAGA
176041  GTAAGCACTA CTCAGAGGTA GGAAGAAAGG ACACAGGATT ATAGGATTAA AACAACAACC
176101  ACCAAAAAAA ACCAGACCGG TGTGGTGGCT CACACCTGTA ATCACAGCAC TTGGGGAGGC
176161  TGAGGTGGGG GGAGTCACTG GAGGCCAGGA GTTCGAGACG AGCCTGGCCA ACATAGCAAG
176221  ATGCTGTCTC TATTAAAAAA AAAAAATACC TGCCTTGAGC TAATCAGAAT CATGGACCCT
176281  GACAAAGGAT GTCCCAAAGT AAGTCTTAGC ATTTTTTTTT TTTTTTTGAG ACAGTCTCGC
176341  TGTGTTGCCC AGGCTGAAGT TCAGTGGCGT GATCTCGGCT CACTGCAACA GCTGCCTCCC
176401  AGGCTCAAGC AATTCTCCCT GCCTTCAGCC TCCCAAGTAG CTGGGATTAC AGATGCCCAC
176461  CACCACGCCT GGCTAATTTT TGTTTTTTTT AATAGAGATG GGGTTTTGCC ATGTTAACCA
176521  GGCAGGTCTT GAACTCCTGA CCTCAAGTGA TCTGCCCACC TTGGCCCCTC CATAGTGCTG
176581  GGATTACAGG CGTGAGTCAC TGCACCCGGC AAAGTCTTAG CATTCTTTAC AAACAGTTTG
176641  TACCCGTATC TCTAAAAGGG AGTAGTGAAT TTCACCCCAA AATGTGGCTT CCTGATATAA
176701  TGAGTATTTT GAATGAAAAA CTCTTAGAGA TCAACAGACA CTAAAGAGAC TTTTCCCTAG
176761  GTACATAAAA ATAGGATGGC CCCACCAGCG AGAACAATTG TTCTTTTCTC CCTCTCTGTT
176821  ATCTCATTGT GCATTATAGG AAAGACCAAG AATGTAACCA CACCTGAACA GACCCTTTTA
176881  TAAGATAATC AGTCTCTAAG CATCATTTAA ATTCCAAGGA GAACTATTTA CAAATTTATC
176941  TGTTCTTTGA TCCAATTAGT CTCTCCTGGT AGTTACATAT TGCCCCTCAA CAGAATTCCT
177001  CTTCTTCTGT TTCCCATAAC CTATTTTGCA AGGATCAAGC CCCTGTTATT TCTTCAACTT
177061  CAAGGTGGCA TATAAGCTTC TAAATTCCAC TGGGATATTG GTACTATGTG CATGAGGAGA
177121  ACCACAGAGT AATTAAATTG TAAAGCCTTT TATCTTATGA ATCTGCCTTT TTTTGTGTTC
177181  ATTTTTCAGC AAAACTTCCA AGGGCAAAGG TATAAAACAA AAATAAAATT CTAAAGCCCC
177241  CCAACCATCT GAATAGACTT TCTCTTCAGT CAGGCTTCTT AAAATGTAAC CTGAAAGACT
177301  GGCTCAGGCC ATTAAGGGAA GTGGGGGTTG AACATGCCTC ATTATTCCTC TCTGGCATTA
177361  ACATCAACAC AGCTTTTAAG TCTGATAAGA AACATTTTAC AACCTATTCT CTCTGAAGCC
177421  TGCTAGCTAA AAACTTCATC CCATAGTACA ACTTTGGTCT TCACAACCTG TTATCACAAC
177481  CTAGTGCTCC TTTCTATTAA TCCCAAATCT TTATACAAAC TCAACCAATT GTCATCACCT
177541  CCACCCCACT CCTCCGCTGC TTCCAGTTGT CCCGCCTCTC TGGACCAAAC CAGTGTACAT
177601  TTCTTAAACG TATTTGATTG ATGTCCCATG CCTCCCTAAA ATGTATAAAG CCAAGGTGCA
177661  TCCCAACCAC CTTGAGCGCT TGTTCTCAGG ACCTCCTGAG GGCTGTGTCA TGGGCCATGG
177721  TCACTCAAAT TTGGCTCAGA ATAAATCTCT TCAAATGTTT TACAGAGTTT GGCTCTTGTC
177781  ATGACACAGA TGACTGCTTC ACTGAAGCCT GCTCTGGAAG TGAGTGGGGG TTTTGCAAGG
177841  ATAATTTTCC CCGGATAGCC CCAGAAGCAG CTAGTAATAA TACACTTAAA GGTAGCTAAA
177901  ATGCATTGAA CACTTGTTTT GTGCCAGACC TATGTCAACA TTTGCTTTGT GCCAGGCTTA
177961  TGCCAGTACT CCTGATTTGT TAATACATTC TAAATAAAAA TTCTGGAGTT TCAAATATAA
178021  TAACTGAAAA ACAGAAAATA AATAAAAATA TATAATAACT GAAATAAAAA TTTACTAAGG
178081  CTGGGGATGG TGGCTCACTC ACACCTGTAA TCCTGTTACC GGAAAGGGGT CCGTCCAGAT
178141  CCAGACCCCA AGAGAGGGTT CTTGGATCTC ACACAAGAAA GAATTCGGGC GAGTCTGTAA
```

Figure 8 (Page 55 of 73)

```
178201  AGTGAAAGCA AGTTTATTAA GAAAGTAGAG GAATAAAAGA ACGGCTACTC CATAGGCAGA
178261  GCAGCTCTGA GGGCTGCTGG TCGCTCATTT TTATGGTTAT TTCTTGATTA TGTGCTAAAC
178321  AAGGGGTGGA TAATTCATGC CTCCATTTTT TAGACCATAT AAAGTAACTT CCTGACGTTG
178381  CCATGGCATT CGTAAACTGT CGTGGCGCTG GTATGAGCAT AGCAGTGAGG ACGACCAGAG
178441  GTCACTCTCA TCGCCATCTT GGATTTGGTG GGGAGCAGTG AGGATGACCA GAGGTCACTC
178501  TCATCGCCAT CTTGGATTTG GTGGGGTTTA GCCAGCTTCT TTACTTTTTT CTTTTTTTTT
178561  TTTGCCCAGG CTGGAGTGCA GTGGCACGAT CTCAGCTCAC TGAAACCTCC AATTTCTGAG
178621  TTCAAGCGAT TCTCGTGCCT CAGCCTCCCA AGTAGCTGGG ATTACAGGCA TGTGCCACCA
178681  CACCCAGCTA ATTTTTTATA TTTTTAATAG AGACCGGGTT TCGCCATGTT GCCTACGCTG
178741  ATCTCCAACT CCTGCGCTCA AGCCATCCAG CCACCTTAGC CTCCCAAAGT GCTGGGCTTA
178801  TAGGTGTGAG CCACCCCACC TGGCCTAGCC GGCTTCTTTA CTGCAACCTG TTTTATCAGC
178861  AAGGTCTTTA TGACCTGTAT TTTGTGCCCA CTGCCTGCCT CATCCTGTGG CTTACAATGC
178921  CTAACTTACA GGGAATGCAG CCCAGCAGGA CTCAGCCTTA TTTCACCCAG CTCCTATTCA
178981  AGATGGAGTC TTTCTTGTTC AAATACCTCT GACAAGCCCA ACACTTTGGG AGGATGACAC
179041  AGGAGGATTG CTTTAGCCTA GGAGCTCAAG ACCAGCCTGG GCAACACAGT GAGACCCCAT
179101  CTCTAAAAAA AAAAATACAA AAAAATTAGC CAGGCATGAT GGTGTGTGCC TGTAGTCCCT
179161  GCTACTCAGG AGGCTGAAGT GGGAAGATGG CTTCAGCCCA GGAATTCAAG GCTGCATTGT
179221  CAGAGGCATT TGAACCAGAA TGACTCTATC TTGAATAGGC GCTGGATAAA ATAAGGCTGA
179281  CACCTGCTAG GCTGCATTTC CAGTATGTTA GGCATTCTTA GTCACAGGAT GAGATAGGAA
179341  GTCAGCACAA GGTACACATC ACAAAGACCT TGCTGATAAA ATAGGTTGTG GTAAAGAAGT
179401  TGGCCAAAAC CCATCAAAAC CAACATGGCC ACCAAAGGGA CCTCTGGTTG TCTTCACTGC
179461  TCATTATATG TTAATTATAA TGTATTAACA TGCTAAAAGA CACTCCTACC AGCATCATGA
179521  CAGCTTACAA ATACTGCGGC AATATCTGGA CTTTACCTTA TATGGTCTAA AAGGTGGAGG
179581  AACCCTCAAT TTTGGGAATT GTCCACCCCT TTTTTGGAAT GCTCATGAAT AATCCACCCC
179641  TTGTTTAGCA CATAATCCAG AAATAACTAT AAGTATGCTT ATTTGAGCAG ACCACGCTGC
179701  TGTTCTGCCT ACAGAGTAGC CATTCTTTTA TTTCCTTACT TTCTTAATAA ACCTGCTTTC
179761  ACTTTACTGT ATGGACTTGC CCTAAATTCT TTCTTGTGTG AGATCCAAGA ACCCTCTCTT
179821  GGGGTCTGGA TCAAGACCCC TTTCTGGTAA CATCTTTCTG GTGACCACGA AGGGACAATA
179881  CTGAGGAGAC TCTGAAGCCA AAGGAAACAG ACTACAGCAC CAACTGGCTG ACTTTGGGTA
179941  AGTGGTGGAG TCCCCGGGTA AAGGATAGGA TTGGGTTAGA GGTGCAACTT AGGGGAGATA
180001  GGGTCTCTCC TAAGACAGAG AGGGTTTCAG TCCGCTCTTA ATAAAGGGCA AGAATGCTTG
180061  ACCGAACTTG GGTTTGAGAC CCAACTTAGG AAGGCTACAG TCCTTAAGAT TTAAGGGGTT
180121  AGAGGCCCCT CTCAGTAAAG TCTCTCTTGG TTAAAAACGG ATTTAGCATT AGGGGATGTT
180181  AACTGCTATT CTGTTTGTAT TAATCTTCCC TGTGCTCTTT GCTGACAGCT ATGGGTGACA
180241  GGATTAGGCA TGTACAGGAT CACGGGACAT TGGGAACTTT TCTTCTCTCC AAAAGGGGAA
180301  GCTTGACAGC TGATAGGACT GTTGGAAAAG ATCCCTTTGC TATGACAAGC AGCCGCCTGA
180361  ACTTTTGATT CAGTGTTGCT GCAATGGGTG GGTCTTTCTC TGGCCTCTGT GAACTCCTCA
180421  CCTTCCCCAT CTCACCACAG GCAATGCTTT TCTCCCTTTC TCTCTTTTCT CTTTTCTGTC
180481  TTTTCTGTTA CTTGAGACAA CCATCTTGCC CAGAGACCAT ATGTTGAAAC TCCTGGTCAG
180541  AAGTTTGATT AAAGATGAAA GGGCCTATCT GGGGGCAAGT TTGAGCCTTC CCAGTTAGAT
180601  ATTGGGTGCT AAGTGGAGTG GCCAATGTCT ATGTTTTGTC ACATGTATAT TGCTCTGGCT
180661  GAAATGGAAA ACGTTAATTT GGTTACTTTA TGTGGCCATT GGGCAGCATC TTACAAAAGT
180721  GAGAGACATT TATTTGCCTG TGGTTCCATG AAACAGAAAA AAGTTGGTTT TCTTTTGTGT
180781  CGTAGCTTGG ACCCAAGGGC TTTGCAGTGA GCAAGGTTGC TAGTGCTGCT CAGTGAAAGA
180841  GAACCCAGAA ACCTGGCATG CCAGCAAAAG GGTAAAGATT TCTTACCAGT CAGGCTTCTG
180901  GCCTCTCTCT CTTAGTGAAA ACTGAATGAA TGGTAAAAAT CACTGTTTAT CACCTCTGTA
180961  AAGTTTTGAT TAATGGGAAC AAGGATTTGT GGGGCTAGTC TTAAGCTGTA ATGAATCTGG
181021  TATACTTTGT GATATCAATT TGTCTTTCTG TATTACTCTG TCATAAAGAG GAATATGGTA
181081  GGATAGAACA TGGGCTCAGG ACTCCATAAG CCTGCTGTTC AAGCCAGCCC AGTAAACTGG
181141  TCCGTTGCAA AGTTTATTAC AGGTCCCTGG AAAAAAAAAA AAATAAAAAC TGGATGAAGT
181201  TTCCTTCTCA TCTTGTTTTA TGTCCTTTGG AGCTTCACCT TGTAACCACG TGGCGGTACT
181261  TTCTCTTGGT CTCTGCCATC CAGGGAACAG GAATTTTGGG GTTTATGTAA TAGTTAACTC
181321  TAAAAATTAT CTCAAGCCAT TGCAAGCTCA AAATTGGCTG CTCTGGACCC CTTCTGGGAA
181381  GGGCAATGGA AACTAACCAG TGTTGTAGCT CAGCAGCTAA GGATTTGTCA TTTTATAATG
```

Figure 8 (Page 56 of 73)

```
181441  GCGGCCAAGG TTCAATCCTG GCTTAGGGAA TGAGTACTTT CTGATTGATA TCTGTGTGAC
181501  CTTTACCATT TGTTGATTCT GTTCTCTTCC CCTCCACACA CTGTCTTGAG TTTTCCTCTC
181561  TCTGAGAACC TGGGAGATTA TCTTTGGTAA AGTTCAAAAG CCAGAAATAA TGGCCGTGTG
181621  GGATGGCTAA AGTTGAGTAA TAAGAAACTT AAAAGGACTC CTTTTTTTTT TGCTTTAGAG
181681  TGCTATGGTT TATGGTTAAA AGCTTAATTA AAAGTGGATA TTCAATCTCT AAAAGCCTGG
181741  GACTCCTTGG GAAAAGCAGA GGAGGCACCA CAGACCCCAT TTTGGGAAAA CCTCTGTTTT
181801  CCTCATGAAA CCCCAGGAAC TGGAAGTGGA TAGATCCTTC GCAAAATCTA AGGCTCTGTT
181861  TGGCTTTGCA TTATGTTATC TGATGTTTTT GACTTTTGGG GGTATCAGAA ATTACTTTGC
181921  ATTATGAGGG AGATCTGGTG TGTAATAACC AGGTAGGAAA TATACTTCTG GGGATAGCTA
181981  AAGGCAAATA TAGGTGAATA CTTGGCTATT TGCACTTTTG GATCACAAGA AGCATTCTCT
182041  TGACTACCTA GAAGGTATGG AAATGTCTCC ATCCCCACCG AGAGATAAGA TTCCCAGGGG
182101  AGATGGCTGA TCCCCCAAAA GAGGGCTGAT TCCCTCTTTT GGGATCCAGG ATCTGGTATA
182161  AAAATGGGAC CCTGGCCAGG CACAGTGGCT CACGCCTGTA ATCTCAACAC TTTGGGAAGC
182221  CTCAGAGTTA TGAATGTCTC ACCATACTGA CACTTTGTGA CTGAGCTCCT CTCTACCCTG
182281  GACACAAGAG ACCCTAATAA TTAGACAGGA ATATCATTGC CCCTATTTAG TCTGAAGAAG
182341  TTATAGAAGA CGGATCTTTA TCCCACTGCA ATCCTTAGGA TTAAGGGTTC CCTGGTAAAA
182401  GGGAGTGGGA AAATATGTCA GAGGCATTTG AATCAGAGTG ACTCCATCTT GAATAGGGGC
182461  TGGGTAAAAT AAGGCTGAGG CCTGCTGGGT TAGGTTAGGC ATTCTAACCA GGAGTTTAGT
182521  CACAGGATGA GATAGAAGGT TGCACAAGGT ACCCGTCACA AAGACCTTGC TGATAAAATA
182581  GGTAACGGTA AAGAAGCCAG CTAAAGCCCA CCAAAACCAA CATGGCCACA AAAGTGACCT
182641  CTTGTCATCC TCACTGCTCA TATACACTAA TTATACTGCA TTAGCATGCT ACAAGACACT
182701  CCCACCAGTG CCACGACAGT TTACAAATAC CATGACAACA TCTGGACGTT ACCTTATATG
182761  GTCTAAAACG GGGAAGAACC CTTAGTTCTG GGAATTGTCC ACCTCTTTCC TGAAAAATTC
182821  TTGAATAATC CATTAGTTTA GCACATAATC CAGAAATAAC TATACGTCTG CTTATTTGAG
182881  CAGTCCATAC TGCTGCTCTG CCTATGGAGT AGCCATTCTT TTCTTTTATT TTTATTTTTT
182941  AGATAAAGAC TCGCTCTGTC ACTCAGGCTG GAGTCTGGAG TGCAGTGACG TGTTTTGGCT
183001  CACTGCAACC TTCACCTCCC GGGTTCAAGC AATTCTCCTG CCTCAGCCTC CCAACTAGCT
183061  GGGACCACAG GTGGGTGCCA CCATGCCTGG CTAATTTTTG TATTATTAGT AGAGATGGGG
183121  TTTCGCCATG TTGGCCAGGC TGGTCTCGAA CTCCTGGCCT CAAGCGATCC ACTTGCCTTG
183181  GCCTCCCAAA GTGCTAGGAT TACAGGCATT ACCCACTATG CATGACCCAT TCTTTTATTT
183241  CTTAACTTTT TTTTGTTTTT TTGAGACAGA GTCTCACTCT GTCACCCAGG CTAGAGGCTG
183301  GAGTGCAGTG GTGCGATCTT GGTTCACTGC AACCTCTGCC TCCTGGGTTC AAGCGATTCT
183361  TCTGCCTCAG TCTCCTGAGG AGCTGGGACT ACAGACATGT GCCACTACAC CCAGCTAATT
183421  TTGTATTTTT AGTAGAGACA GTGTCTTGCC ATGTTTGTCA GGCTTGTCTC GAACTCCTAA
183481  CCTCAAGTGG TCTGCCTGCC TCAGCCTCCC AAAGTGCTGT GATTACAGGC ATAAATCACT
183541  GCGCTCGGCC CTTCTTTACT TTCTTAATAA ACTTGTTTTC ACTTTACTGT ATGGACTAGC
183601  CCCAAATTCC TTCTTGTGTG AGATCCAATA ACCCTTTTGT GTGTGAAAGA ATGTATTGCT
183661  GCTGTTCAGG CTGGAGCAAG CTGGAGCTCA TGCTGCTGCT CAGACTGGAG CATGCGTGAT
183721  CTGTGATCCC AGTAAGAGGA TCATGGTCAC TCCAGCCTGA ACGACAGCAT GATATCTCAT
183781  CTGTAAGAAA AAAAAATTAC TAGAGGGCTT TAACAGCAAA TTTGAGCAGC AAAAAGAAGT
183841  AATCAGTGAA CTCAAAGATA GGTCAATTGA AATGATCTAC TCTGAAAAAC AGAAAGAAGA
183901  CAGAATGAAG AAAAAGAAAT AGAGCCTTAG AGACAGGGGA TACCATCAAG CATACTAATA
183961  TATGCATAAT GGGACTCCTA GAAGGAGAAA AGTGAGAGGA CAGGGAGAGA GAATGTTTGG
184021  AGAAATAATT TCTCAAAGCT TCCCATGTTT GGCAAAAAAG CATTAACTTG CATACATATT
184081  TTAGGAGCTC AATGAATTCC AAGTAGGATA CACTCAAAGA GATCCATACC TAGACACATC
184141  ATAATCAGAT TATCAAAAGA TGAAGAAGAT GAATCTTGAG AGCAGAAAGA AAGGAACAAT
184201  TCATCACATA CAAATAGTAC TCAAAAGATG TCTGGAGTAG GTATACTAAT ATCAGACAAA
184261  ATAAACTTTA AGATAAGCAT TGTTATAATA AATAAAGAAA GGTATTTTGT AATGATAAAA
184321  GTGTCAATTC ATCAAGAAAA CATAACATTA TAAACATACA TGCACCTAAC AACAGAGCCC
184381  TAATATTCAT GAAACAAAAC TGACAGAATT GAAGGGAGAA ATAGAAAATT CGACAATAAT
184441  AGTTGGAGAC ATCAATACCT CACTAGTTAG ACAAGATCAA CAAAAAAATA GAAGACTTAA
184501  CACTTGAAAA CACCTAACCT GACCCTAACA TAAATCTATA GGTCACTACA CCCCAAAACA
184561  GCAGAATAAA CATCCTTCTG AAGCTCACAT GAAACATTTT TCAGGATAGA CTGTATATTA
184621  CTTCATGAAA TAAGTCTCAA TAAATGTAAA AGGACTATAA TAATAGAGTA TATATTCTCT
```

Figure 8 (Page 57 of 73)

```
184681  GACCAAAGTG GAATGAAGAT AGAAATCAAT AACTAGGCTG GGCGTGATGG CTCACGCCTG
184741  TAATCCCAGC ACTTTGGGAG GCCAAGGCGG ACAGATCACG AGGTCAGGAG TTTGAGACCA
184801  GCCTGACCAA CATGGTGAAA CCCTGTCTCT ACTAACAAAA TACAAAAATT AGCCAGGCCT
184861  GGTGGCATCT GCCTGTAGTC CCAGCTACTC GGGACACTGA GGCAGGAGAA TCACTTGAAC
184921  CCAGGAGGCA GAGATTGCAG TGAGCTGAGA TCGCGCCACT GCATTCCAGC CTGGGAGACA
184981  GAGCGAGACT CCGTCTCAAA ATTAAAAAAA AAAAAGAAAC TAGAAAAATA AGAACAAATC
185041  AAACCCAAAG CAAGCAAGAG GAAAATGAAA AATTTCAAAG CAGCCAAGAA CAAAAGGCAC
185101  ATTATGTACA GAAGAACAAG TGTATAGATC ACATATTTCT CATAGACACA ATATAAGCAA
185161  AAAGACAGTG GAGCAAAATT TTTTAGATTA ATGAAAGACC TACAATTCTG TACCAAGCAA
185221  AAAAACTCCC CCCAAATGAG GGTGAAATAA GACAATTTAA TACAGAGAAA AGAGGAAGGA
185281  ATTTATCTAG TCATATGTGA GAGTTTTATG ATACATTTTG TACTGTATAT GTGGATGTTT
185341  TCTATTTCAT TTAAAAAATC AACCGTGCAA TTAAATGGTA GATTGTCTTG CTTCTTTTTG
185401  ATTGACACAG TCATTAACTA AAATATTGTA GTATTTTTTT ATCTCCCTGC CTAAAGGCAA
185461  TAAACATCTA ATCAGCAGAC TAGAACAATA AAAAATATTT TTTAAAAGTC CTTTAGGCAG
185521  AATGATAAAA GTCCCTTAGG CATATTGAAA TTCCTATTTA TACAAAGGAA TAAACAGTAC
185581  TAGAAATTGT AACTATGTGA GTAAACAGAT AATATTTTTT CTCCATAAAA TGTGGTTGAC
185641  TATTTTCACA AAAATAGTTA ACAATGTAAT GTGTGATTTA TAGCATTTAA AAGTAAAACA
185701  GGCCGGGCAC AAAGGTTCGT GCCTGTAATC CCAGCACTTT TGGAGGCCGA GGCGTGCAGA
185761  TCACTTGAGG ACAGGAGTTC AAGACCAGCC TGGCTAACAT GGCAAAACCC CATCTCTACT
185821  AAAAATACAA AAATTAACCA GGCGTGGTGG TGCACGCCTG TAATCCCAGC TACTCTGGAG
185881  GCTGAGGCAC AAGAATCACT TGAATCCAGG AGGTGGAAGT TGCAGTGAGG CAAAATTATA
185941  CCACTGTGCT CCAGCCTAGG CAACAGAGCT AGACTCTGTC ACACACACAC ACACACACAA
186001  AAGAAAAGTG TATGACAACA ACAGTGCAAA AGAAGTGGAA ATGAAAATAA TGTTATTTTA
186061  TATAAGTGGT ATACTTTTAG ATGAACTACG ATAAATTAAT GATGTATACT ATAAACTCTA
186121  AGGCAACCAC TGAAATAATG AAACGAAGAA TTATGGCTAA CAAGCCACAA AAAGAAATAA
186181  AATAGAATGA GAAAAAATAT TTAAGTTGTT CAACAGATGG GAAAAAAAAG AGGAAAAAGA
186241  GAACAAAGAA CAGATGGGAC AAATGGGAAA GTAATAGCAA GATGATAGAC TTAACTCTAC
186301  CCATATAGAT TATCACACTT AAGGTAAATG ATCTAAATAC TCTAATACAA AAGCAGAGGT
186361  TGTCAGATTG AATTAAAAAA ACAGACAACA ACAAAAAAAA GCAAAAAAAG AGCCACAACA
186421  TGCTGCCTAC AAAAAATTCA CTTTAATATA AAGACACAAA TAGTCTAGAA CACCATCACT
186481  TTTAACCTTA TTTACTCAAA CCTCCTGATC CCTATTTATT TATTTATTTA TTTATTTATT
186541  TATTTATTTA TTTATTTATT TTTGAGACAG AGTCTGACTC TGTTGCCCAG GCTGGAGTGC
186601  AGTGGCACCA TCTAGGCTCA CTGCAGCCTC TACCTCTCGG GTTCAAGCGA TTCTCCTGCC
186661  TCAGGCCTCC CAAGTAGCTG GGACTATAGG CACATGCCAC CATGCCCAGC TAATTATTAT
186721  ATTTTTAGTA GAGACGGGGT TTTGCCATGT TGGCCAGGTT GGTCTCAAAC GCCTGACCTC
186781  AGCCTCCCAA AGTGCTGGGA TTACAGGCGT GAGCCACAGC ACCCAGCTCC TCTTCATTTA
186841  TTCTTGCTAC GCTTCCTCCA ATCCATTTTG TGCATTTGAT GATTTTGCCA GTAACTTCTT
186901  TATTTTTCTG GTAAAATTAC TTATGGGTCA CTGAGGACTG GGATGTTCTT TCTTCTAGAG
186961  GGGGTTTGTG TCTGCTTTTG CCAGGAAGCT GGGGTACCAC CAGTCAAGTA TTACTTTAAA
187021  CTCAATTCAT GAATTGAGAC TTTTTTTTTT TTTTTTTTTT TTACGCAGAG TCCTACTCTG
187081  TCACCCAGGC TGGAGTGCAG CGGTGTGAAC ATGGCTCACT GCAGCCTCAA CCTACTGAGC
187141  TCAAGCAATC CTTCTGCCTC ACCATTCTGT ATAGCTAGGA CTACAGGTGT GTGCCACCAT
187201  GCCTGACTAA TTTTTTAAAT ATTTTTTTTA GAGATGGGGC TCACTTTGTT GCCCAGGCCA
187261  GTCTCGAGCT CCTGGGCTCA AGTGATCCTC CCACCTTGGT CTCCCAAAGT GCTGGGGTTA
187321  CAGGCATGAG CCTCTGTGGC TAGCCAAGAC TTTTTATTTT TTAGCCTAAA TGTGTATAAA
187381  AGTTGGCTTG TGGTTACAAC TTATCAGGAT TGATGATCTC TCTCTCTCTC TCTCTCTCTC
187441  TCTGTCTCTC CCCACCTCTC TCACATCCCT TGCTCTGCTG AGAAGCAGAG CAAACATTCT
187501  AGCAGTTTCC AGAGAGTAGG ATGGGATTAC TTCTAGTTTA CTTTTATCAT CCTTTGGGAT
187561  CGCAGTATTA CTGGGAGAAC ACAAGTATCT CTTATTAGAC ATACCACCTT TGTAGAATCT
187621  GGACTTTCAT TTTAGACTTT ATTTGTTTTC TACTATAAGC AATTTAAGTT ACAGATCTCT
187681  CTACACACTG TTTAAGTTGC ATCCCATGAA TTTTGATGTG CTTTATTGTC ATTATTATAT
187741  AGTACAATGT ATTTTGTAAT TTTTTGTGAT TTGTTTGGAG AGATTGATTA ATTAGAATGA
187801  TGTTTAATTT CCAAATATGT GTGTTTTTTT CTACATTTCT TATTTTTATT GATTTCAAAT
187861  TTATTTCTAC TGTAGTCAGA TTTAATAATT CATTTATTTT TATTATTTTC ATTTTTTTAG
```

Figure 8 (Page 58 of 73)

```
187921  AGACAGGGCC TTTCTGTGTT GCCCAGGTTT GTCCCAAACT CCTAGTCCCA AGCAGTTCTC
187981  CTGCCTCAGC CACCCAAAGT GCTGGGATTA TAGGCACGAG CCACCCGTGC ACAACCAACA
188041  ATTCATTTAA AAAGTGGGCA AGTGAACTGA ACAGACATTT CTCAAAAGAA GGCATACAAT
188101  TGGCCAACAA ATATATGAAA GAATGCTCAA CATCACTGTA TTAGTCTGTT TTCATGCTGC
188161  TAATAAAGAC TTAACCTGAG ACTGGGGAAT TTACAAGAGA AAGAGGTTTA ATGGACTTAC
188221  AGTTCCACAT GGCTGGAGAG ATCTCACAAT CATGGTGGAA GGCAAGGAGG AGCAAGTCAC
188281  ATCTTACATG GATGGCAGCA GGCAAAGAGA GAGCTTGTGC AGGGAAACTC CCGTTTTTAA
188341  AACCATCAGA TCTCGTGAGA CTCATTCACT ATCATAAGAA CAGCATAGGA AAGACCCGGC
188401  CCATAATTCA GTCACCTCCC ACTGGGTTCC TCCCAGGACA CATGGGAATT GTGGGAGTTA
188461  CAATTCAAGA TGAGATTTGG GTAGGGACAC AGCCAAACCA TATAAATAAC TAATCATCAG
188521  GGAAATGCAA ATCAAAACCA CAATAAGGTA TCATCTCACC CCAGTTAGAA TGGCTATTGT
188581  CAAAAAAACA AAAAATAACA AATGCTGGTG AGGATGTACA GAAGAGGGGA CTCTTATGTC
188641  CCACTGGTGG AAATGTCAAT TAGCATAGCC ATTATGCAAA ATAGTATGGA AGTGAGGTAG
188701  GTTACATAGG GTGGTCACAG CCTCCCTTGA AAGGAAACAA GAAACTTGTC AAATTGATGG
188761  AGAGAACAAA TCTCTTGACA TTACACAAAC TGCATCTGGG GCTAGTGGTT AGAATATCCT
188821  CAGTCAAGGA GGTAGAAGAG CAGGAGGGAA AATCCCTAAG TTCGTGCAAG TGCAGAAACC
188881  CACAAGCTGT GTTCTCAGGT TGACATATAC TCATTTTAAT AGTAAGAAAC ACACCCTTGG
188941  GTAGAGAATT AAAATGCTAA TAATACATGT GATGTATGTA CTAGCGTGTA TGGCAATATT
189001  GCATGCACAT TCAAGAGACC ACCCAAAACA TATTTAACAA CAATGCCCAT TCCCACCCCC
189061  TCATGGATAA TCACGTAGGA CTCCCATAAC GGGAGTTTCT TCAGTGTCAA TTGGTGCTGA
189121  AGTAGCCGAC CCTGACTCTG CTATCAGCGT GTACTTTCAC CTTGCAATAA ACTCCTTTGC
189181  CTACTTTTAC TTTGGACTGG CTTTCAAATT CTTTTGTGCA GGGAATTCAA GAATCTGAAC
189241  CAGCCTACTG ACAACAGAGG TTTCTCAGAA ACCTAAAAAT AGATCTACCA GATGAGGCTG
189301  AAAATCTGCT ACTGGCTATT TATCCAAAGG GAAGGAAATC AGTATACAAA GAGACACCTA
189361  CATCCCCATG TTTATTGCGT CACTCTTCAC AAGAGCTGAT ATATAGAGTC AACCCTAAAT
189421  GTTCATTAAC AGACAAATGG ATAGAAAATG TGGCATATAT ACACAATGAA ATACTATTTG
189481  GCCATGAGAA GAATGCAATC TTGTCATTTG TGGCAACGTA GATGAAACTG GAGAACATTA
189541  TGTTAAGTAA GATAAGCTAG GATTGGAAAG ATAAATACTA CATGTTATCA CTCATATGTG
189601  AAAGTAGAGA AAAATTTTTA GCTCATGGAT TTAGAGAACA GAACTGTGGG TACCGGAAGC
189661  TGGGAAGGGT AGCAAGGAGG GGAGGATAGG GAGAGGTTGG TTAATGGTGA CAAAATTACA
189721  GCTAGATTGT AGAAATGAGT TCCGGTGTTC TGCACCATTG TAGGGTGCAT ATGGTTAACT
189781  CTCATTTATT GTATATTTTC AAAAAGCTAG AAAAGAATTT TGAATACTCA CAACAAAATA
189841  AATGATAAAT GTTTAAGGTG ATGGATATAC TAATTACTCT GATTTGATTA TTACACATTG
189901  TGTACACATA TAAAAATATC ACTCTTTATC CCGTATATAT GTACAGTTAT TATATGTCAA
189961  CTAAAAATAA AAGAAAAAAA GAATATGATC TATCATGATG TATATATCAT GTGTACTTGA
190021  GCAAAATGTG CATGCAGATA TTGTGTATAA TGTTCTATAA ATCAATTAGC TCAAGATAAT
190081  AGATAGGATT GTTCAGATCT TCTGTGTCTT TACTGATATT TTGTCTAGTT ATTGCATCAT
190141  TACCAAAAAA AGGGTGTTAA ACTCTCCAAA TGTGATTGTA GAATTGTCTA TTTTGTCTTT
190201  TCTTTTCCAT TTTTACTTTA TGTATTTTGA AACTCTGTTA TGACATTTTG CTATGTATTT
190261  TAAAACTTCG TTATGTATTT TGAAACTCTG TTGTTAGAAT CATACATTTA TGATTATTAT
190321  GTTTTCTTGA TGAAATGACA CTTTTCTATT GTCATTGTTT TTGTTTTTTC TGAAATGGAG
190381  TCTCACTCTG TTGCCCAGGC TGGAGTACAG TGGCACAATC TTGGTTCACT GCAACCTCCA
190441  CCTCCTGGGT TCAAGCGAGT CTCCTGACTC AGCCTCCAAG TAGCTGGGAT TACAGGCATG
190501  TGCCAGCATG CCAAACTAAT TTTGTATTTT TATTAGAGAC AGAGTTTCAC CACGTTGGCC
190561  AGGCTGGTCT CGAACCTCTG ACCTCAGGTG ATCCGCCCAC CTCGGCATTT TTATTTTATT
190621  TTATTTTTTT GAGACAGAGT CTCACTCTGT CACCCAGGGT AGAATGCGGT GGTGTGATCT
190681  TGGCTCACTG CAACCTCCGC CTCCTGGGTT CAAGCAATTC CCATGCCTCA GCCTCCCGAG
190741  TAGCTGGGAT TACAGGCACA TACCACCATG ACTGGCTAAT TTTTGTATTT TTAGTAGAGA
190801  TGGGGTTTTT CTATGTTGGC CAGGCTGGCA ACTGACTCCT TTAACAATAC AAAATATCAC
190861  TCTGTCTCTG GTAACACTCT CTGTCTTAAA CTCTATTTTA GCTGTTATTA TTATAGCCAT
190921  TTTAGTCTTT TTATGCTTTC TGTTTGCATA GTGTATATAT TTTAATATGT TTATTCTCAA
190981  GTTATCTGTG TTTTTATATT TAAGATGTTT CTCTTCTAGC CAACGTGTTT GGTTCTTGCA
191041  TTTTTAAGTC GATTCTAACA ATCTTTGCCT TTCAATTGAA ATATTTACAC CATTAACATC
191101  TAACATTAAC ATTTATTTTT CTTTCCACAG TACACTGGCT AGCATCTCCC ATATAATATT
```

Figure 8 (Page 59 of 73)

191161 GAACATAAAG TGTGATAACT GACATCCTTA TTTCATTCCT ACTCTGAGTG GAAAGGGCAG
191221 GGGTGGAGAA AGCATTCAAC AATTTGCCAT AATTATAATG CTTTTTGTTA CACTGTTTTC
191281 TTCTGCATTA AAAAATATCA TTACATTTTG CATGAATTAT TAGGAGAAAA TATTTTCCAA
191341 TTTTCCTGGA AAATGCCATA ACCACGTCTC TCAATTTTGT TTCCATCTTT CTTCCACATT
191401 TTACATAACC TACATAAGAG ACACATTATC AAGTATATTT TACATGGCTT CTCAGTGTCT
191461 TCTCTGTCTG CTAACAGGTT TACCAAGAGA TGGCACTCTT GTATTTCTGG TGGCTATGTC
191521 CATATCGTTT TGCCTTTAAG ACAGCGTAAC TACTTCTTTC ACCAGTATTA AAGACATGTA
191581 CATTTGATCT GGTTCTTGTG GATGATTTTA AATGACTCAA GCTAATAATC CTAATTTTAC
191641 CTAAACACTC CATTATTTTA AAATGTATTC CTTTATGCCC ACAATAAACA TTTATTGACA
191701 TTAGGCTGGA CATTAGGCTT CTCTATGGCA GACATTAGGC TGGACCCTAG CCATATATCT
191761 ATTGAGGGAA AAAAAATTAT TTTCTATATA AGTTTCCAGA AAGCCAAGAT GTGTTTTAAA
191821 AACAAAACAA AACATTACAT TCTAAATGCT GTAACAAGAT AAGAAAAAGT GTTGAGGCTG
191881 AGAGAAGAAC AAAGCAGCAA GCAACTCCTG GAAGGACCAC TGCTGCAGAG GTAATAACTG
191941 GTGAACCATG TTTTGGAGAA GGAAAAGGTC ACCAAGAGAA GGAGGGGGTC CAGGGTGTTC
192001 AGAAAGATTG CATGCATAAA GATCAAGGGT AATAAAAAAA ATTCCGTATT ATGTAAATGT
192061 GAAGTTCCAG GACCATGAGC TTGGAGAGCA TGAAGTACAG GAGGAGGGTT GGTTTCAAAT
192121 AAATCTGGGA ATGAAACAGT GAAGCCTCTG GCAGAACTCA CATCTCTTTC CTCCCCTCTT
192181 CCTTGCACAT TCCCTTTATG GAGTAATTGC AGGGATGGGA AAAGTTCAAA ACCACCACTG
192241 AGCCTAGGAA GTGCTAGGGT AAAGTGGAGA ATGAACCTGC GTGATTTGCT CATCCTAAAC
192301 TAGGTTCTTC TAGGAGAGCC CTTCCCCATA AAATCTGCCC TCCTCGAAGG GGCCCAGACA
192361 GCCTAAGCTC ACCTCCCAAA GACCCCTTAC TTGCTGACTG AATCTGATTC CACCCAGACA
192421 TGGCCTAAAA CCCTTCCATA ACTCTATAGC CAAATTCAAT TTTAGACAGG CCTCATACCA
192481 ACCTTTCTTC CTCTAAGTCT GCCACCCTAG GCAATTCTCA ACATTCTCTA CACACTTTGG
192541 GGCCATAGAC GTGCTACCAA GTCTCCAGAC CTAGACCTGA TGGAGCAGTG CTGTAATGAG
192601 ACGACCACTG GCCTTTGAAC CAGACCCTTC TCTGTGGCTC CTATGCATCT CCAACCTGTT
192661 TTGAGCACTG CTGCCAAGAC ATCTTTGGCA CTTTGTTGTG AAGTTTTAAA ACTGAACTAA
192721 TCTACAAAAC ACCTAACCTT TAAAAATTCA TTGTCATTTC ATATCATGAA AGATAAAGAA
192781 AGGCCAGGAA ACTGTTCCAG GTTAATAGAG ACTAAAGAGA TAGCAACCAA ATGCAATTTG
192841 TGATCCTGGA TTGAGGGGAA AAAGTGTTGT CAGAGACATG ATTGGGACAG CTGGTAAAAT
192901 TTGAATTTGA ATTTAAAGAT AAAGTATTGA GTAATATAGG AAGATGATTA TCTGCAACTT
192961 TCAAATGTTT CAGTAAGTAT ATATATATAT AAAGAGATAT AAAGACATAT AAATAAATGG
193021 ATAGGTAGAG AAAAAGCAAA TGTATAATAT TAACAATCTA GGTAAAAAGT ATATGAGTGT
193081 TCTTTGTACT GTTTTTCTGA TTTTTCTATA TGTTTGAAAT CATTTTAAAA TAAGAAGGTT
193141 TTTGGGTTTT TTTTGTTTGT TTTTTGTTTT TAGAGACAGC ATCTTATTCT GTCACCAGGC
193201 TGTAGCTCAG TGGCCCAATC ATTGCTCACT GCAGCCTCAA CTTCCTGGGC TCCAGTAATT
193261 CCCCCTACCT CAGGCTCATG AGTAGCTGGT ACTTCAGGTG TGCACCACTG CACTCAGCTA
193321 ATTTTTATTT TTTAAATTTT TGTAGAGATG GCATGTTGCT ATGTCACCCA GGCTAGTCTC
193381 AAACTCCTGC CCCCAAGTGA TCCTCCCACT TTGGCCTCCC AAAGTGCTAG AATTATAGGC
193441 ATGAGCCACT GCACCCAGCC CCAAATAAAA AAGTATTTTA TTTTAATTAA CTAATTAACT
193501 TTGAGTCAGA GTTTCACCCT TGTCACCCAG GCTGGAGTGC AATGGCATGA TGTTGGCTCA
193561 CTGCAAACTC TGCCTCCTGT GTTTAAGCGA TTCTCTTGCC TCAGACTCCT GAGTAGCTGA
193621 GATTACAGGT GCCTGCCACC ATGCCCAGCT AATTTTTATA TTTTTAGTAG AGACGGGGTT
193681 TCAGCATGTT GGTCAAGCTT GTCTCAAACT CCTGACCTCA GGTGATCCAC CCACCTCCGC
193741 CTCCGAAAGT GTTGATGAGC CACCACACCC GGTCTAAAAA GTATTTTAAA ACCACAGTCC
193801 CACTCTACCT TGTCCTACAC TACCAGGGGC TAGGATCACC CCATGTCTTC TAGGCTATGA
193861 GATAGAGGAA TCCAAGGAAG AAGATAAGCT ACTTGGTTCC TCTATAGGGT CTTGTGTGTG
193921 CTCTCATGTG CTCTCTCTCT CTCTCTCTCT CTCACACACA CACACACACA CACACACACA
193981 CACATGAATA CCAGAGCTAT CACTTTCCCA GTCTAGTACT CATCTCATCC CAAGGGTTTT
194041 GTGTTGTAGT GGTTTGCTCA TTTCTTTGTT TTGTTTGTTT GCTTGGATTA TTCTTTTTCT
194101 CTTTTTGCAG CTGAAGGGAG AATTTCCAGG CCAGCCCTTT GGCCATTAGA GTTACAGTGC
194161 CTCTATTCAG GCTTCATAGA GAGACCTGGG ATTCAGTAGT GGGGGGCTTT TATCCAGTTC
194221 AAAATAATGC ATTCTCACCA AGATGTACTT TGAAATAAAA CAATACTAAA ACACAAAATT
194281 TTATTTATGC TGAACATTGA ATCACTTTTT TCTGTATTTT GTGTAGAAAG TTATACACAC
194341 ACAAACACAT TTGCTCCTGC TTTGTTTATT GGCCCAGGGG TATGTTTGGT AATACTTCAT

Figure 8 (Page 60 of 73)

```
194401  CAGGCATGAG TAGTACGTCT TGGAAGGTGT GGTCTAAAGC CTAGACTCCT ATCTGCTTCC
194461  TTCAGCATTC TCCAGTGTAT CTGTCATCTG TCTACCTTAG GATAGGGGTC TCCAGAACTT
194521  CCATTCACAT TTAGAAGAGG GCAGCGGCTT TCTATGGAAA ATATGAACTC TCATTCATCT
194581  CTATTCCTTC TTCTAGCTAT GGTCCAGCTC AGCTGTTTGG AATAAAGTAT CTATATGAAG
194641  TCTGCGAATG GTTCTCAGAC TGGTTGAACA TTAGAATCAC CTGAGTACCT TCTAAAATTC
194701  TTATTACCCA GGGCATATCT CAGAATGAGT ACCGCAGGGT AGGGATAGGA TTAGGGATCA
194761  TGATCTCTGG AGTCTGGTTT AGGCACTAGT GCTGTTTAAA ACTACGTTCA TGAGGTGGAG
194821  GTTGCAGTGA GCCGAGATGG CGCCACTGCA CTCCAACCTG GGCGACAGAG TGAGAGTCTG
194881  TCTCAACAAA ACAAAACAAA AAAAACCAAC TACCCTTGTG ATTTGAATGT CCATCCAAAA
194941  TTGAGAACCA TTAGGTAAGG CCAAGCTGTA TAATTAAAGA GCAGTTTTCA TTTGTCTGGT
195001  GTGGTGGCAG CTTTTTGATA AGGGAAGTAT TGTTGCCATC CACATACCTG AGCCTCACTC
195061  CTGAGAACAC TGGTGTGTAT GTTGCTAAAA TTCCCCAGGT GATTCTGAGG TTCCTTCCTG
195121  GATAAAAACC ACTGACCCTG GGAATGTACC CACTGCCAAT CTCCTGCGTA AACCTTGGAT
195181  ACTGGGAAGC CTACAGTTGA AAATATTGGG CTTGAGATCC TGAAACAAAT CTTGTATTTC
195241  ATTAAGACTA ATATTTGGTA CAGTGCAGCA AATCAAGGGA ATTTTGGTGG CTGAGTTCTT
195301  TTAGAACTTT TGCATTGAAA TAGGTTCAAG CAGCAATAAG TTAAAACTAC AACCTCAGCT
195361  AAAGGATTAA AAGACACGTG AGCTGGGTAG GATGAGGTCT AAGGTTGGGT GTGGCGGCTC
195421  ATACCTGTAA TCCCAGCACT TTGGGAGACT GAGGTGGGTG GATCACTTGA GGTCAGGAGT
195481  TCAAAACCAG CCTGGCCAAC ATGGTGAAAA CCCATCTCTA CTAAGAATAC AAAAAAATTA
195541  GCTGGGCGAG GTGCCAGGCA CCTGTAATCC CAGCTACTGG GGAGGCTGAG GGAGGACAAT
195601  CACTTGAACT CAGGAGGCAG AGGTTGTAGT GAGCTGAGAT CGCACCACTG CACTCCAGCC
195661  TGGGTGACAG AGCAAGACTC CATTTAAAAA AAAAATAATA ATAATAACAA TAATAATAAT
195721  TCAGACATAT CCAGGCATCA AACAGATACC TGGGGCAGAT GAATAGTCTT GAGATTCAAG
195781  TCACACATGA AATTTAGGTG GAAAATGACA TTGGAGAAAT TTGAGATTAT GATGAATGGA
195841  AATTTTTCAA AGAGGAATTT CAGGCTCTGT TCTTGAGGGG ATAGATGGAC TTCCAACAGC
195901  AATAACACAG GATTAATGAG GACTTGGGAT GTTACATAAA TTAGAGATGT TAGATGGATA
195961  AAGAGATAAA AGTACTCTCT CTAAGAACAT GGGACCAGAG ATAGGCTCAC TTCTAACCAT
196021  CAGATATAAC TAGCAGACTA AACGGTCTAA AAATAAAAAT CATGCCCCAC TCCTGCTTAA
196081  GACATTTTAA TTACTCTCAG TAACTCTTCA GTTTTTCTAC TGTGTTATCT TTAACTACAG
196141  GGTTGGTCTG GGTGTGCAAC ACAAGAAAGC CTGGCATATA CATGGATTCA AGTGTATGCC
196201  ATGTGCAGGT ATTCTTTCAT GTACTATTTC ATGTATTCTT TTTCACATCT GTTTTTTCCT
196261  TCATTGAAGT CAATGGCTGA TATTAGATTC TACTATTCAT GTGTACTAGT TATATATAAT
196321  TGTTACAAAA CAAATTAGCA AAAACTTAGT GGCTTAAAGC AACACACATT TATTATTACC
196381  TAAGGTCTGT GGATAGAAGT TCTGACATGG CTTAACTGGG TTCCCTGCTT CAAGCCTCAT
196441  GTGGCTGCAA TCCAGGTGTT GGCTGAGTCT GAATTCTCAT CAGAGGCTTG ATTGTGGAAA
196501  TTTCCACTTC CAAGCTCCCT CAGGTTTGTT GAAAAATTCA GTTCTTTGCA CCGGTAGAAG
196561  CTTCTTGGTA GAGGCTGATT CAACTTCTAG AGGCTGTCTG CAGTTCCTGT CACCCAGGGT
196621  GGAGTGCAGT GGAGCAATCA TAGCTCACTG CAGCCTTGAC CTCCCAGAAT CAATCTGTTC
196681  TCCCACCTCA GCATCCTGAG TAGCTGGGAC CACAAGTGTG TGCCATCACA CCTGCCTAAA
196741  AAACAAACAA ACGAAAAAAA ACCCCCAGAG AACTTTGTAG AGACAAGCTG GTCTGGAACT
196801  CCTGCGCTCA AGCAATTCTC CTGCCTTAGC CTAAAAGTTC TGGGATTATA GGTATAAGCC
196861  ACCATACCTG GCATATGGCA AGTCTTGAGC AGGACAAATA CAGATGATTT ATGTCTGTCT
196921  TCCATGGTAT TCTAGGTTAT TGTTGAGATG GTCCTCTATT GTCTTGTTCC ATCTATTGAT
196981  TAGATAAAAC GTTGTTCCTT CTGTTATTTT TCAACAGTAG CTTTTATGTG TCTCTCTTTA
197041  TCTTAAAATT CTAACCAAAG AGCTGCTCTT TTCTTGGTGT ACTTTACCTT TGGTTGATCC
197101  TTCTTAACCT CTTCTTGCCC TCTGGGGCCT AAGATGAGGG CTGTTATCAG ATGTGAGTCT
197161  ATGGGAAAGC AAGCAAGAGG TTCTTCAGCC TCCGTTCAGC CTTAAATGTC TAGGTAGAAA
197221  TCAGTCATGG CCCTTCCAAT GTGGTACAGA CCAGATCACA GAGACAGGGG TCTCAGCCAA
197281  GGTCTTGTGG CCTAAGCCTT ATAGAAATAA TGAGTGTTTA CTTACTTGGA GAACTCCCTT
197341  GGAATATCTT TTTTTGTGAA CCTGAGGCAA CTTTTGGTGA TTTCTTGATG TCTTGGGAAT
197401  CTTGGTCTAG AGCCATTTCA ACCCGATTTC TTTTCATGTC AGTGGCATTT TGTGACCAGA
197461  TAGTAAATAA GTTCTATGAT GTTCACTCAG AGAAATACAA TGACTTATGA TGCGAAGCTT
197521  CTGTGGTTCA GCCCTTACTT CATCTTCATT CCCTCTTATC TGCATCTGTC TCCTGCTTGG
197581  GAACAAAAGT CTGGCTTCAT TCTATGACCC CCACGTTGAG TTTCTTAGTA GCACTTACTT
```

Figure 8 (Page 61 of 73)

```
197641  TTCAATTAGG AGTGTCCTCA CTTCTATCCG TCAGACATAA CTAGCCGACT AAACAGTCTA
197701  AATATAAAAA TCATGTCCTA CTCCTGCTGA AAACATTTTA ATTACTCCCC ATCATTTAAT
197761  TTTTTCTACT GGGTTATCTT TAACTTCAGA GTTGGTCTTG TGTGCAACAC AAGAAAACCT
197821  GGCATATACA TGGATTCAAG TGTATGCCAC GTGCATGTAT TCCTTCATGT ACTATTTCAT
197881  GTATTCTTTT TCACATCTGT TTTTTCCTCT AAAATTTATT TCCTTTTAAA AATGAAAATT
197941  TTGCATTTGA CTAAATTTGT CAAATTTAGT CAAATTTGTT TAAAACCATT TTTAAAATGT
198001  TTCCCGAAGT TTTGAGTGAA GTTAGTACTT CAGAAAAACT GTTTTGTATT TTTCCTGTGA
198061  CCTCAGTGCA CTGCTGTGCA TTTCCATTTC TGCGTCCACA CACATTTGTT TTGAGGAAAT
198121  ATAGGAACGA CAAGATAAAG TTCAAGCTCC TGGACATTGC ATAAAAGACC GTCATGACCT
198181  GGTCCTGTTG ACTTCCCTAG ATTTCCCGCT ATTTCCTAAG TTGAGATTTT TGGTTTGGAT
198241  GCTTTGTGTT TTCCTAAAAT CAAAATAGGT TTTTGCCTTT TATGATTATA CAGTAAATAA
198301  ATGCTATTTG TGTGAAACTT TAAACAATAC AAAAAAAACC TAAGGAAGAA AGTCAGATTC
198361  ATCTAAAAAT CCTTGTGGCC AGAATTAACT ACCTTAGTTA CTATTTTCTC TATCTCTCTC
198421  TCTCAATGTA TATTTGGTGT AGGTATAGGG GTGTGTGTAG TGTGTGTGTA TGTATATATC
198481  TGTTTCTATT CCTGTATGTG GATGTGCACA ACGCATCCTG CTTTGTACAC TACAGTACTA
198541  GCATTTTTCT AATGTAATTC AATATTGTTG AAAACATTTT AAAAAAGCTT GTATATATAC
198601  ACACACATAC ACATACATGC ATGTATGTAC ATATACACAT ACAGACAAAA ATGTATCCTA
198661  TGTATATTCA CACATGTATA CACACTCACA CATACATAGA GTTTTACATC CATAGTTTAT
198721  AAATGTTGCT TTTTTTTGGT CACCTTTTTG CTAAGTCTTA CACTTTTTTT TTTTTTTTT
198781  GAGACGGAGT TTTGTTGTCA TTGCCCAGGC TTAGTGCAGT AGCGCGATCT CACCTCACTG
198841  CAACCTCGAC CTCCCGGGTT CAAGCGGTTC TCCTGCCTTA GCCTCCTGAG TAGCTGGTAC
198901  TACAGGTGTG CGCCACCATG CCTGGCTAAT TTTTGTAGTT TTTTTATAGA GACGAGGTTT
198961  CACCATGTTG GCCAAGCTGG TCTGGAACTC CTGACCTCAA GTGATCTGCC TGCCTCAGAT
199021  TCCCAAAGTT CTGGGATTAC AGATGTGAGC CACTGCACCC GGCCAAGTCT TACACATCTT
199081  TTTTTTACCA CTAAACTGTT TACCCAAACC TGATAACCCA AGTCAACAGC TATTATGGCT
199141  CACACAATCT TATGTAAACA AAGATACAGA TATATAGAAT TTTCTTGATT AATATTCAGA
199201  AAAAAATGGA GTCCCTTTAT ACGTCCTTAG TATCTGCTTT ACTCATTTAA AAATGTATTA
199261  CATTATATGA AAGTATTCAG GTCAAATGTT ATAGATGTGA TTCATTCTTT TTAACTGTGT
199321  TATTTTTCTG CAATGACTAT GTATCACAAA GTACTCAGTC TTCCACTGAT GAAAATTTGG
199381  GCTATTTCCA GTTTGTCTTC CATTTTTCTT TCTTCCTCTT GGATTTTCAC TCAATGTGTT
199441  TACTAATTTA GGAAGAATCA ATAGTTTTTA TGGTATTACT TCTCCCATTC AAGAATATAG
199501  CATATGGTAT AGTATAGTAG AGTACTTAGT TTAATTTAGC CAGATCCTGT TTTCTGCCCT
199561  TTAATAAAAT TCTATCATTT TCTGCCTTTG AGTCACATTT TCCTTGTTCA TATAATTCTT
199621  AAAAAATGTA TAGTTTTCAT TCTAAGGGAA CATAAAAACT TCTTTCCATT TCTATTCCTG
199681  TCTAGTTAAT TCTACTATTG GGAAAAGTAA CTGTTAAAAA AAATTCTTAT CTTTCCAGTC
199741  AGTTCACCAC ATTTCCTTTA TACCTTTGTA CTTTAATCCC CAGTCATGTT GAACACTTCT
199801  TATTCCTCAC ACCAAGCCTC AACGGGTTTG CTCTTTCTGG AAGGTGCTTC CCCTGTATTA
199861  CTGACTTATT CATACCACAC ATGGAGACTG GCGCAGCCCT GTTCTGCCTG GGAAGCCTTC
199921  CCCTGATACC CCCAGTTGGC AGGAGTCTTC ATTTGTTCTT TTCTAGTCAC CTGTGCAAGT
199981  TTGTATTGTT CATGTTTATC ATCCTTCATT CTAGTTGTCT GTCTCTGTGT GTGGTCTCAT
200041  TCAGTGGACT CTGAACTCTT ATGAAGTCAT GTCATGGGTC AGATCTTAAT AAATTAATAT
200101  TGTCGGAAGC TAATGTCATG TCTAGAATAC AGAAAATTTA TCAAAAAAAA ATATAGTATG
200161  TTGGCTGGGC GCAGTGGATC AAGCCCGTAA TCCCAGCACT TTGGGAGGCC GAGGCAGGAG
200221  GATCACATGA GGTCAGAAAT TCAAGACCAG CCTGGCCAAA ATGGTGAAAC CTCATCTCTA
200281  CTAAAAATAC AAAAAGTAGC CAGGCGTGGT GGTGCCCACC TGTAATCCCA GCTACTCAGG
200341  AGGCTGAAGC GGGAGGATCA CTTGAACCTG GGAGGCAGAG ATTGCAATGA GCTGAGATCA
200401  TGCCACTGCA CTCCAGCCTG GGCGACAGTG AGACTCCATC TCAAAATAAT AATAATAATA
200461  ATAATAATAA TAATAATAAT AATTGTATGG AATTGAACTG CTCTGATTGG AAATAGCTGT
200521  TTTTTAAAAA ATTATTATTT TTTAAGTTCC TGGGTACAAG TACAGGATGT GCAGGTTTGT
200581  TACATAGGTA AACGTGTGCC ATGGTGATTT GCTGCACCTA TCAACCCATC ACCTAGGTAT
200641  TAAGTACAGC ATGCATTAGC TCTTTTACCT AATGTTCTCC CACACCCCCA CCCCATCCTC
200701  CCCCAACAGG CCCCAGTGAG TGTTGTTCCC CTCCCTGTGT CCACATGTTC TCATTGTTCA
200761  GCTCCCACTC ATAAGTGAGA ACATGAGGTG TTTGGTTTTC TGTTCCTGCC TTAGCTGTTA
200821  ATGTCAGGCC AGAGAGGCTT AAATTTTTAA GGATCTCTGG ACTTTTCTTC TACATTACTC
```

Figure 8 (Page 62 of 73)

```
200881  TTGATGTTTA TAAATGTTAC AACTTCTTTA ATTTCATTTA ATGTATACCT TATTGAGTTG
200941  ATTTAACTGA GTTAACTTTG TTATATGAAA ATCATGATTG GGAGTGAGGG GGTTAAACCA
201001  GCTACAGAGA TCTTGATTGT TGGTGGTGAA GCAATGCAAG AATTCATTCA TTCAGTAAAC
201061  TAATGTTTAT TAAGCGTGTA CTGTCTTAGT CTGTTCAGAC TGCTGTAACA AAATATCATA
201121  AACTGGGTGA CTTATAAACA ACAAAAAATT TATTTCTTAC AGTTCTGGAG GTGGGAAGTC
201181  TAAGATTAAG GCCCTGGCAA ATTTAGTGTC TGGTGAGGAC AGGTAGCCAT CTTTTTGCTG
201241  AGTCCTAACA TGGCAGAAGG GTTGAATAAA CTTCCTTGGG TTTCTTTTAT AAGGACACTA
201301  ATCCTAGTGA TGAGGTTTCT GCCCTCATGG TATAACTACT GCCCAAAGAC CCCTCCTTCT
201361  AATATTATCA CTTTGTGGGT TAGGATTTCA ACATGAGTTT TGAGAGGATA CAGACATTTG
201421  GATCATAGCA CACACCATAG GACAGACACT GTGCCAAGAA TTGTGGATAT AGTGATTCTC
201481  AAAATGAACA AGATCCCCTC AGAGAGCTTG CAAAATCCAG CTATAAAATT ATGCTTTTTA
201541  AACAAATTAT GCAGTTTGAA AAATCTACTC TGAATCTTAC TTGTGGCATT GAATACTTTC
201601  GGCCACTCTT TCCTTATTAT ATTAAATATT TACTCTTGTT TGGGGGATCC AGTCTCACCT
201661  ACTTTTTCTA CCAGAACTGG TATCAGCTCA TGCTCTGCCT TATGCAAATT AAGAAAATAT
201721  CATACCTTTT GGGTAAATTA AGCCAAGAAA GTTCTCCTTT CTTCTCTTTC TCTCTTTCTT
201781  TCTTTCTCTC TTTCTCTTTC TTTCTTTCTC TCTCTCTCTT TCTTTCTTTC TTTCTTTCTT
201841  TCTTTCTTTC TTTCTTTCTT TTTCTTTCTG ACAGGGTCTT GCTCTATTGC CTAGGCTGGA
201901  GTGCAGTGGT GCAATCTCAG CTCACTGCAG CCTTGAACTC CAGGGCTCAA GCAATCCTCC
201961  TGAGTAGCTG GGACTATAGG CATGTGCCAC AACATCAAGC TAATTTTTGC ATTTTTTTGT
202021  GGAGACGGGA TCTCCCTATG TTGCTAAGGC TGGTCTTGGA TTCCTGGGCT TATGCGATTC
202081  TCCTGCCTCA GCCTCCCAAA GTCCTGGGAT TACAGGCATG AGCCACTGCC CCTGGCCATT
202141  ATAACTATTT TCATTGGCTT ATCAGGCACA TGATAACTAT AATAAATCAA TAACCAGAAT
202201  TTTTAAATAA AGAAAGGAAG GAATTGTTTC AACTCTTCCT GCTACCCCTC TATCCCTCAA
202261  AAGGGTAGGC TGAATGTTGT CCTCCAAAGA TATCCATGTC CTAATCCCCA GAACCTGTAA
202321  ATATATTACC TTATATGACA AAAGGGACTT TACATGTTTA ATAAGTTAAG AATTTTGAGA
202381  TGGGCAGATT TTCCTGAATT TTGCAGATGG GCCCTAGTGT AATCACAAGG GTCCTTATAA
202441  GAGACAGGCA GAAGAGTCAG AATAAGAGAA AAATACTTCA AGATGTTACA CTGCTGGCTT
202501  TAAGGTGGAG GAAAGGCCAA GAGCCAAAAA ATGCAGTGGT CACTACAAGC TGAAAAGAAA
202561  AAGAAATGGA TTTTCCCCTA AAGCCTCTGG AGGGGGCACA ACCTTGCCAA TACCTTGATT
202621  TTGGCTCAGT GAAACCCATT TTGGACTTCT GACCTTTAGA ATTGTAAATA AATAAATAAT
202681  TTTGTGTTGT TTCAAGCCAT CACAGTTGTG GTAATTTACT ACAACAGCAA TAAAATAGAA
202741  TTAAATACAG AGATCTGAGG AGTTGAGTAG GATAAGCCTA CTCCAGCAGG TTATTTCGGG
202801  AGTATGGTGA GACTCACTAG GATGGCGGAA CTCAATTAAG GAAGTCTGAA GCTGATAAGC
202861  CAGAGAGGGA AGGCTCTCAT TTCATTTTAT AAGGGTTGCG TCACACTAGG AAGATCCAAT
202921  AGCAACCACA GTCTCAAAAT TAATGATTAC AAATAGGACA CAATTCCAAG AGTCGGGAGC
202981  CAAGCAGAAA ATGGATTAGG GAAGACATGG ATGATATGAA ACAGGAAGGA GGGGTACAAG
203041  GCAGCTTCCT GGGAAGTTGC CAGGGCAGTC ACAGTTCACA TTCATTAGGC TGTGGGCACC
203101  AAATGCATAT GGAAAATCTA GCTGACTTAA CTGAACTCCT GAAGAGGAAT GAACACCTCA
203161  TTTATTGAGG AGCTACTACC AATTAGAATA TGTATTTCAT TTGTTCAATA ACCCCATGAG
203221  TACAGTAACA CAATCCTTGC TTTACTAAAG CGGAAGCCAA TTCAAAGAGG TTCAGTGACT
203281  TGTCCAAGCT CAGGGAAAAC ACTAGGAAGT GAATATGGGT CTGACTCCAT CACTGATTTC
203341  AGGAGCCCTG CCCTTTCCTC CACACCATGC CCCCTTGCTT TCAGAAAAAA AGGCTTGTTG
203401  ACTGAATGGT TGTATGCACA GTTCAAAGCA GAAACACACG ATGACATCTT TTGAGATACT
203461  CTAACAGTGA GAACTTGAAA ATGAAGTTAA AAATTAAGCG GCAAAACCAA GCCGAGGCTT
203521  TCTGAGAAAG TGGGGCCAAA CCTGTTGCCG TCTGACTGCC ACGTGGCTCA CTATTTATCC
203581  CTGTAAAAAT CTGCAAAAGT ATTTGAAAGG GAAGAAGGGA CAGAAAACTC CCTCCTTTTC
203641  CAAGTTAGCC TTATAGTCTA GGGCTTAAAA TACTGGTTTA ATGGTGAAGG TAAGTGCTTT
203701  TCTTCTTTTT GGGTAGAAGG ATTATTACTA ACTTACCAAA GGTCCATTAA GGGGAGGGAA
203761  CAGTTTTAGG AGAAGTCAGA GAAAAGACAT TAACAGCAAC ATAAGGATCT CCATCTGGTA
203821  ATATTGCCTA ATTCCAAAAT GAAGAGACTC TCTGAAAAAG ATAACTGATT CAATGAAGAC
203881  CCTAGGGCAA GGCTTGAGAA GCCACTGGTA CCAATGGACA CTGTGGACAA TGGTCATTTC
203941  TCCAAGGACG CTGTGAGTAT TAACTGTGAT GCTGTGATTA GTCAGACTGG GATTGGCTGT
204001  GGAATGAAAT ACTGATCAGA ACTGACAAGA TTTGTGTTTG GGACTGTGGC TAACGAGTCT
204061  TTTCAGACTT CTATATGAAT TTGAAATGGT CTCTCAGGAA AAGGAGAACA TGGCCGGGCC
```

Figure 8 (Page 63 of 73)

```
204121  TGGTGGCTCA CGCCTGTAAT CCCAGCACTT TGGCAGGCTG AGGCGGGCAG ATCACTTGAG
204181  GTCAGGAGTT TGAGACCAGC CTGGCCAACA TGGTGAAACC CTGTCTCCAC TAAAAATACA
204241  AAAATTAGCA GGGCGTAGCG GCGCGTGCAC CTATGCGCAT GCATAGTGCG CGTGCCAGCT
204301  ATTCAGAAGG CTGAGGCAGG AGAATTGCTT GAACCCAGGA CGTAGAGGTT GCAGTAGTTG
204361  AGATCATACC ACTGCACTCC AGCCTAGGTG ACAGAGTAAG ACTCTGTCTC AAAAAAATAA
204421  TAATAATAAA AGAAAAGGAG AACATGACCA AAGTTATGAA TAAGACTGAA GGCAAGAAAA
204481  TTGTACGCTT GTAGAGATCA CCTAGCTTGT TGCCCTCATT GTACAGCTAA GAAAAGGCAC
204541  CCAGGGACAT TGTGGTCAGC ACCAATTTCT CAGAAAGATA GGCAGATGAT GAGAGGGCCC
204601  TCAGTTTTTC TAACACTGAA GGAATTGCTT CTATGTTTTC TGGTGAACTC CTCCCCACTC
204661  ATCTTGAGGA TTCCAGGCCA GAAGAATCCA CTTTAAAAAA GAAACATTTA AAACCAATTT
204721  AACAACCAAT CAAAGGCACT TTTATAGAAA TACATTTCAT TTGCTGTAGG CCTGTATTTA
204781  TGGATCTGAG AGGGCTAGAC TGCCAATATT GTGACTGTTT ATTATTATTG CTGTTGCTAG
204841  TATCTAGAAT ATTATACAAC ATATAACACT TTGCAATTTA CGAGGCATGT CTCATACTTT
204901  TGTTTTCACT CCAAACTGCC CAGTGAAGTA ACATTATCCC AATTCTTCCT ATGAAACAGT
204961  GAAAGCCCTA AGAGTTTTTG AAACTTTACC TGGTTTACTC AATTTGGGAA TGGCAGAGCA
205021  GAATTCAGTC CTTGAATATC CTCCCACTGC AGGTTCATGC TCTTTGATCT AGGTGTAACA
205081  TTTACTCTGA GTAAACTAGG ACTCTGGGCT AACAGAGATG AAGCAAGACA GGCTGGATAT
205141  TAGGAGAATC TAAGAGCAAT CTAACGACCA TTATAATAAA ATCATGAGTT CTAGACTTAA
205201  AAAAAGGGAA AAACCTGTTT TTTTGCTTAT GCGTATACCA TAATATTTAC ATTATTTATT
205261  TTTTTCTCAA ATTCAACCTA TACTGTGTCA AGTAATTTTT TTTAATATAA CATTTTCCTT
205321  TAACTTAATT TCAATTCATT TTTCTGTGTC TACTTACAAC TTTGGCACTA GAATTCACAA
205381  TTTTTTTTTA GAGGTATATC TCCTTAAAGG GAAGGGTTCT GACACTGTTA CATGTTCTCA
205441  ATTGTTTGCA AATAGGTTAA TAATTATTCC AGTGTCTCTA AGTACATATC AACCATGCCA
205501  GTGTTCAGCC TCCATAATTT TATTAGCTTC TGTGCTTATT TTGGAAAAAC ATTTCCCATT
205561  ACCATGAAAG ACCTCAGTTT AGGATGGTTT GGTATGTTAG CCTGATTTCT GCATTCGTCT
205621  CATGCAAAGG AAAATAGGAA ACGAAGAACT GAAATTACCT ATTGATACAA AATCAAAGTA
205681  GCATTTGAAA CCATAAAACT TAAGTAGGGC TTTTCATCCT TTCTCGTTAG ACAGCAACAG
205741  AGAATGGGAA GAAAAACTAA AGTGATGGGT TTGTGATACA ATTCCAGTAA CATAAAGAGC
205801  AAGGAGAAGT AGTTTTGTTG TGTTTATGTT TAATATTCAA AGCTCAACCT AAAAGTATTT
205861  TTCATTATCA AACTTCCTTC TAGAATAAAT GATTAAAACT TGATTTAAAA TATACAAATT
205921  CTCCTTTATA ATACCTCAAA ATGGAGCTAC CCCATTGAGT TTTAAGCTTG TGATTAAAAT
205981  ATTACGAAAA CAAAGGGGAA GTTGTAATAG GTAGAACAAG CAGTAGTCTA GGCATTAGGG
206041  GATCTGGTGC TGGCTCTGTG CATCATGTGG TTTCAGGCAA CTTTTCAAAT TTTCTACGCA
206101  AATTTTCTTA TCAATAAAAT AAACAGTTGG GCCAGAGGAT CTCTGAGTCT CTTTCAGCTT
206161  TCAGTGTTTA TAAGATTGGA GAAGTTGGTG GGAAAGCTTT AAGTGGAGTG TAAGTAATTG
206221  CAGCTGCATG TACAGTTAAA GAGTTGCCTT CAGCCAAGCC ACGGGATCTT GCATAAAAAG
206281  TGAAATCAAA TAGAAAATGG TCCAAACTCT GGGTTTGACC ACAGATGACT TCAGCTAGGA
206341  TCTGAGTGTA GAGCAATGAG CTGAACTCCT GATATCCAGA TGTTAGCAAG ACTTGGAGGC
206401  CTTCTAAGGC AGAGCAACAA CCAGTATCTG TCCTGGTGCT GACCTGATCT TACTAGCAAT
206461  TGGGCCTCCA TTTGGGTCCA TTGTACAAAA CAACAACAAC AACAACAATA AAATCTCCAA
206521  ACACCCAAAA TTCAAAATTT AGATGGAGAG ATACTATTCC CAGAATTCTA GAGATATTTG
206581  GAAAGCAGAA AACTATACTT GCCATGCTGA TGAAGTCCAA TTATTGCTCT TTTAAATACA
206641  TTTAGCTACT TCTGAATATA AAATGAGTAT CTACTAATTA TTTACAAAAT CACTTGGTAA
206701  ATATAGAAAG TCACAAAGAA TGAAGTGATC ATCCTGTTTT GTAACCCAGA AATAGTCATT
206761  ACTGGCACTT GTGTGAATCA GTTTCTATTC CTGTATGTGG ATGTGCACAG CGTATCCTGC
206821  TTTGTACACT AGAGTACTAG CATTTTTCTA ATGTAATTCA ATATTGTCGA AAACATTTTA
206881  AAATAGCTTC CATCACAATA ATCTATCAAA TTGACTTGCC AGACTCTCAT TATTAGGTTA
206941  ATTTATCTCT AACATTATGC AGTCATGAGT AATACTACAA AGGATATTTT TGGACACAAT
207001  TTTTCATCTA TGCCTTTCTT TATAATCCTT CATCCTAAGG TCACAGATTA TGAATATCTT
207061  TAAAGTACGG ACAAGTCTTT TAAATTTTGT GTGCAAAAAC AGTGCAAAGC CTTGAATGAT
207121  AAAATAGAGG TTTGATATAT GTGTTTTTTT GTTTGTTTGT TTTGAGACGG ATTCCTGCTC
207181  TGTCCCCCAA GCTGTAGTGC AGTGGCACGA TCTTGGCTCA CTGCAACCTT TGCCTCTTGG
207241  GTTCAAGCAA TTATCCTGCC TCAGCCTCCT TAGTAGCAGG GTCTACAGGC ATGTGCCACC
207301  ACACCCGGCT GTTTTTGTAT TTTTAGTAGA GATGGGGTTT CACCATGTTG GCCAGGATGA
```

Figure 8 (Page 64 of 73)

```
207361  TCTCGAACAC CTGACCTCAA GTGATCCACC CACCTCAGTC TCCCAAAGTG CTGGGATTAC
207421  AGGTGTGAGC CACTGCACCC GGCCGATACA TGTGTTTTTA AAGTCACAGA AATTTCAGAT
207481  GTCTTGAAGG ATTTTAAGCA ATTTAAAAAA TAAAGTCATA GAAGCTTCAA TTTAGGAATG
207541  AATGGAAAAT TGATGATATT CTTAGGATAT GGATTTTTCC TAAAAGAAAC AAATGTATGC
207601  ATCCCCAAAG ATAATTTGAT TAGTATACAA ATATTAAATT AAACATGTCC ATATTTAGAG
207661  CCATGAATTC TCTTTGCCTG TCACAATAGC TGGATTTATT CACAATTGTA GTAATTAGTC
207721  CCTGTTCATT ATAATTTTCT AGGTGATATG AAGACTTTGT CAGTCCAAGC AAGTGTCCAC
207781  ATTGTGTGTA GCAAACATGA GAATAAACAT TTTAAACTTT TAAATGTAAT ACATATTAGT
207841  GTTATGTAAT GTCATCCTTC ATGTTCGAAG GCACATGGAA CATTGTTCTG GTGGTACAGA
207901  GGGGAGAGAA ACACCATCAG AATGAAAGGA AAGACCGCTC TGGAACCTTC CTCCTTAGCT
207961  CTTGAGCTTA GTTTAATTGT CCTGTCTTAT GGTCTGCTAC AAGCAATACC ACTCTTCACC
208021  TTCGCATGCT TCTCTGTGGT TTGATAAAGT ACATGCAATT TTTCATTTAA TTCTTCCAGC
208081  TGCACTAAGA AAGGAGCCTT ATCTTTATTG AACAGATGAG GAAATGAATG ATTAGAGAAT
208141  TTAAATGACT AGCTCTAGGT CACACAGCTG GAACTTACAG CCAGATTTCC TTTTAACAAT
208201  CCTGTAACCA AAAGCATACC AGTAGTGCCC CATAAAATGT AAGTTATAGA GCTGTGTTGG
208261  GTCAAAACTT TTACTGATGC TAAGAGGAGG CAACATTAAC AAGGGGAAAT TATTTGTGTA
208321  TTATGTTTTG GATTATGTTC TCTCCATAGA TAAAAGACTG TCGTAGTAAA AGAGATTCAG
208381  GGCACAGGGA AACTCCACCA CAAAGCGTGG TACCATTTCC CACAGAAGCT AAATGGACGG
208441  GAAGCCTGCC ACCAGGAAAG GTAAAGCCAC TGCTCTTGTT TGCAGGCTAT GTTAATAAGC
208501  TGAAGCTTAT TCCGACACAT TTACACATCT CTGCATCACA CTGACCCTTC GTAAAGATAC
208561  TCCCAGTGTA ACATTGGAGC CAGCTCCAGC CCCTGATCCT GTTGCTTTTT CCTTAGCCCC
208621  ATGAAATCAT CTGTGAGAAA TTAAGCCAAA TAAGCAATAA ATCCTGGGAT CTAGGGAGTG
208681  GAATAAGTTT TGGGAAAGTC TTTTTTTTTT TTTTTTTTGA CTGAGTCTTG CTCTGTCTCA
208741  CAGGCTGGAG TGCAGTGGTG CGATCTCGGC TCACTGCAAC CTCTGCCTCC CGGGTTCAAG
208801  TGATTCTCCT GCCTCAGCCT CCCGAGTAGC TTGGACTACA GGCACACACC ACCATGCCCA
208861  GATGAATTTT TGTATTTTTA GTAGAGATGG AGTTTCGCCG TGTTAGCCAG GATGGTCTCG
208921  ATCTCCTGAC CTCGTGATCC ACCGGCCTCG GCCTCCCAAA GTGCTGGGAT TACAGGCATG
208981  GGCCACCACG CCTGGCCCGG GAAAGTCATT TTAAACCAAC CTATGTATGA ATCCCTACTA
209041  TAATATTCTC ACCAAGCGGC TGGCTCTTTC TCCTGAGCTT GGAAACCTCC AGTAAAATGG
209101  AAATAATTAT TTCCCAGACC ACCACTCTTA TCTGTGAGCT TTTTTGGCCA TTAAAAATTA
209161  TTTCTTCCAT TATATTTTTA TCTGTGTCTT CACAGGTTTT CTCTTTCTTT CACTTTAGTG
209221  CTTTTCTTCA AATAAGCAGG AAAAATCCAA TCTATCATGC ACATGGGAAC CCTTTCAATA
209281  TTGGTCTGTG GTTGTTCCAT TTTATGGGGA TGCTTTTAAA GAAAAAATTT GTCCTTTCAA
209341  TATATTGAAT ATCTTCCAGC ACCACATCAC CTGCAAGCTT TGTAAAAATA GTTCTACATA
209401  TTAATTTTTT TTTTTTTTTT GAGATTGAGT CTCATTCTGT CACCCAGGCT GGAGTACAGT
209461  GACATGATCT TGGCTCATTG CAACCTCTGC CTCCTGGGTT CAAGTGATTC TCCTGACTCA
209521  GCCTCCCGAG TAGCTGGGAT TACAGGCATG CATCACCATG CCTGGGTAAT TTTTGTATTT
209581  TTAGTAGAGA TGGGGTTTCA CCATGTTGAC CAGGCTGGTC TCAAACTCCT GACCTCAAGT
209641  GATCCACCTG CCTTAGCCTC CCAAAATGCT GGGACTACAG GCGTGAGCCA CTGCACCCCA
209701  CGTAGTTTTT TTTTTTTTTT AAGTTGAACA TATGTGAAGG CAGGACCTAG TGACACATAG
209761  CAATAACATT TCCAAGTAGA CATTACACTA GGGAATTAGT CGAAGTGCTC ATTTAAAGTA
209821  CCATCTCTCA AATGTATTAA AAGAGAATCC TTGGATGTGC AATACCTTAA TTCAAAGGCA
209881  GCTCGTTATG TATAAACTCT CAAGCTTTGT GATAAACAAA TGTGCATAAC AGATGGGACT
209941  ATTCACTTAC AGCCCAGGGA ATTTTATTGA CGCTGAGAAG GTTATGTGAC TGGCTCTGCC
210001  ACTGTCATCC CCATTCACTT CATTTTGGAG CAATATGACA TAAATGCCTT ACATGTGGGT
210061  TTTCTCTATT TATCATGTGT TTCCTATCCC CTTGAAAGAT GGCCATATTT GCTTTACTTG
210121  GTTATAAGAT CCCATATTCG CTGTCTTGAA GCCAACCAAA TAATTTGACA AAGTGGGTTT
210181  GTAGTGCTGG CTATTTTGGT GAAAAAAAGA CAATGAGACT TCATGTGTCA TCCAAAGTTC
210241  TATCAGATCG AGCTGTGAGA GAAAGGAAAA GAAAGGGGTC TCAGTCAGGA TGCTCACTAC
210301  ATACATCTGT GTTGTTGTCT AGGTCCAGAT TTCTGTTCAT TACGCTATGG GCTGGCTCTT
210361  ATCATGCACT TCTCAAACTT CACCATGATA ACGCAGCGTG TGAGTCTGAG CATTGCGATC
210421  ATCGCCATGG TGAACACCAC TCAGCAGCAA GGTCTATCTA ATGCCTCCAC TGAGGGGCCT
210481  GTTGCAGATG CCTTCAATAA CTCCAGCATA TCCATCAAGG AATTTGATAC AAAGGTAAGT
210541  ATGATGGAAA ATAGGGCTCT TTGTTGAGAG AAAAAACTTT GAAAGGAAGG CATAGATCTT
```

Figure 8 (Page 65 of 73)

```
210601  GATTCTGTGG AGTATGGAAG TATACATTTC CAATGACAAA TTAAAACTGA CTGGAACTAT
210661  TTTTCTTTGA GACATTGCTT ACTTCAATAA TAAAAATAAG ATTTCATTGA GGTTATTATG
210721  ATTATAAGGT GGGGGAACTG TAGAGTTAAA TGTGAAAAAT TTAAAAATGG AACAGTTTAT
210781  GTGATGTCTT CAATGAAAAA CTAGGTATTA CCTGGGCACA TTCTTATAGG TTACTCAATC
210841  CTATTCAGTT CTCTGCCTGT TTTATTGTTT CTGAGCAATT TTATATCCCT GTAAATTCTA
210901  TATAACCAAT AGAAATGCAA ACGATTCTTG TCCATAGCTT TGCAAATAAA TTTTGCCAAG
210961  AGAAAAATCA GTTAAAACTT TTCTCCACTC ACCTCCCAGT TGAATTAGCC AATTTTGCTG
211021  TTTGTTTGTT TGTTTGTTTT TTGAGATAGA GTCTTCCTCT GTCATTCAGG CTGGAGTGCA
211081  GTGGCATGAT CTCAGCTCAC TGCAGCCTCC GCCTCCCGGG TTCAAGAGAT TTTCCTGTCT
211141  CGGCCTCCCA AGTAGCTGGG AGTAAGGGGG CATGCCACCG CGGCTGGCTA ATTTTTGTAT
211201  TTTTAGTAGA GACAGGGTTT CACTAGGCTG GTCTCGAACT CCTGACCTCA GGTGATCCAC
211261  CCGCCTCGGC CTCCCAAAGT GTTGGGATTA CAGGTGTGAG CCACTGTGCC AGGCTCTGCT
211321  GTATATTTAA AGTCTATTTC AGCATTGCTT CCTGCTTGTG TTATGCGTGA TTCTTTGAGT
211381  TTTCCTTTGA ACCAGTTATA ACATCTTACT TACTTCCTCC ATTAATCAAT GAGTTAAATA
211441  AAATCTTTGT TGTATGTTTA TTTTACATTT ATATGAAAAC CATGAATTTA CCCAATTAAA
211501  AAAATTATCC TTTAAATTAT CTTGTACTGT ACATTTCCCA TGTCATCCCT ATAATTCATG
211561  ATTAATGATT TTATTACATT GGACCTAGCT TATTTACAAT GAGTACATAA ATTTATTGTC
211621  TCCAGTCTTT CCTCCATTAT CCCGTCTACA TATCCACACT GAGTAGATTC ACTACTCAGG
211681  AATCTTGGAC ACCTTCAAGT TGCCAAACAT GCAGTGTTCA CTGGACATGC TGTGTTCCTT
211741  CAGAATTTGG GCCTGCTTCT CAGCACACTC ACATCTGCTA TCAATGACCC ATGGAAAGTT
211801  TTTGCCCTGA GCAAGCCAGA GTCCCTGTTA GTTTCTTCCA AATGCTACAA GTTCACTTTT
211861  GCTATTTTTT CCGATGAGAT AAAATTTTCC TTTTTGACTT TCTACAAATC ATAGTCATTT
211921  TTCAAGGGAT AGTTCAAGTA TTGCTTCCTT TCTGGGACCT TCCCAAATTA TTATTTTCTC
211981  CTCTCAAAGT CTCTGTTTTA TTTATGTTCA TCCTCAAATC TTGATTCTCA CATGAATCAT
212041  ATACCTTGTA TTATTTATAG TTTTTTTGAG TGGGTAAAAT ATTTCATATT TTATATTCTT
212101  TGGCTCTCTA CTTTATAGCA TGATGCCAGA TATTTAGGGG CCTTATTGCA TTTATTTTTT
212161  ATTTTATTTT AAAATCTATT TTATTTTTTA TTTATTTATT TTAAAATCTA TTTATTTTTA
212221  GGTAAATATT CAGGTAATAT AATTTATGTA ATTATTTAGG AATTTTAGGT AGTTATTTTA
212281  AAATAATTCA AATTATTTAT TGAGTTATAT CAGAAGAATG TGATCTTATT CATTTGTAAT
212341  ATGTGTTTTA GGAACTCAGT TCAGCCAGGG CAGACCATGA TTCCCAAACT TGACTTTTCT
212401  TTTTAATTAG GCACTGATTT TGGTTAAGAG TTCAGTAAAG TTTTGTGTGT GTGTTTTAAA
212461  AAATTCTTTG ATATAAGAGT CAAGATGTTA CTCAACTTTT ACTAGAAGCA AAATAGAGGA
212521  AGTGCTTTCA CAGATGAAAT ATCTCTCAAT GTTTTCTTCC ATTTACTTCT TCCTATTATT
212581  CATCTATATA ATCATTTTCT TTACCTCTTT TCTTCATTTC TTCTGTTTTT CTCTCCTTCT
212641  ACTAAGACAA GCAAATTAGG GGTATAATTG GTTATTTGGG AAGGTAGGAA GAATATAGAG
212701  AGAAACAAAA ATCAATATTT TATACTAGGG TCTCACTAAC CTCAAGCAAC TCTGACTGTA
212761  AAGTAGATTT TCATAATAGG ACTTCTTGAC AAAGAGTTTT CCTATTTTTC CCCCAGGCCT
212821  CTGTGTATCA ATGGAGCCCA GAAACTCAGG GTATCATCTT TAGCTCCATC AACTATGGGA
212881  TAATACTGAC TCTGATCCCA AGTGGATATT TAGCAGGGAT ATTTGGAGCA AAAAAAATGC
212941  TTGGTGCTGG TTTGCTGATC TCTTCCCTTC TCACCCTCTT TACACCACTG GCTGCTGACT
213001  TCGGAGTGAT TTTGGTCATC ATGGTTCGGA CAGTCCAGGG CTTGGCCCAG GTATCCAGAT
213061  ACTTTCTCAT TCTTGGTGGG ATCCAGATTT CTGAATTCTA CAAAATATCA AAGGTCTTAA
213121  TGATTTTCAT TTCAGGGAAT GGCATGGACA GGTCAGTTTA CTATTTGGGC AAAGTGGGCT
213181  CCTCCACTTG AACGAAGCAA GCTCACCACC ATTGCAGGAT CAGGTAAGTG TGCACAGATG
213241  GGTCATAGCT TTGTCATCTG TTCCATCCCA CTGTGTCTTA TCTTCTATGA ATCAAATGGT
213301  TTGGGGAAGA GAGAGAAAAA GTACTGCTGA AAAATTCAAC AATATAAGAC ACTTGCATCA
213361  CAAATAGGAA AGATGCATCT GTGCAGTAAA GACATTGAAG CTTAGAAGTA GAAAAAACCA
213421  TTGTGAGCTA GGTTTCAGCT CAGAAAAGCC TTAGTAGTCA GAAAAGCCTT AGTAGTCAGA
213481  AAAGCCTTGT CGGAAAAAGT TTAAACCTTT AAGAATTGCA CACATGGAAA AAGATCAAGT
213541  AAGCTATATA TACACCATCT TAGCAATGAT TTTGAAGTGA GAATTAAGGC TACCACAGCT
213601  CCAGGTGGTA AGGAGAGAAA TCAGGCTGGA AGAGTTTGAA GTTTCTGTAT TATTCTAAGC
213661  TCTTTACTAT TCTATTATGA GCTCATTAAT TCTCACAACA ACCCTCTCAT ATAAGTACCA
213721  TTTTAAATTC TTATTTTACA GAGAAGGGAG TTAAGGAAGG TGGAGATTAA GAAAATTGCC
213781  CAAATACAAA TAGCCAGCAG GTGGTAGGTC TGAGATTTAA GCCCATGCAG ATTTTAGCCC
```

Figure 8 (Page 66 of 73)

```
213841  CAGAGCAGAC ATTCTCAATC ACTATGCTAG ACTGCCTTTC CATGGTATGT GATCCTACTC
213901  AGGCCTCTAC AGCTTTATCA TTGCTGTTCT CCCCAGCCTG TCGTGCTGAG AGTATATACT
213961  CGAAGAGCAG AACTAAAATT CCATCCAGCT TCTCACTCCT AGGTCCACTA CACAGCTGCA
214021  TCCTGCAGAC TTTTACCTCA AGCAACCCTC CTGCGTTCTT GCTTCCTTCC ATCATAGTTG
214081  TAACCATCTC CTCTATTTGC AAATACTATC TGCTGATCTC TCTCTTCTAG ACTGGTTTCT
214141  TTCAACCTTC TTCCCACCAA AACCAAGTTA GCTTGCTAAA ATAAAGATGG CACATTTTTA
214201  CTCACCCGCT TGAGAATTTT CAATGTGTTC CTTCATGCTT ACAGAGTAAA GCCTGACCTC
214261  TTTATTGCAT GAATACAAAA GTTCTTAGCC ATCTGGCCCC AACCTTGTTC CACTCAACTC
214321  CCCTGTGCAA GCATGGCTCC AGTGGCACTG GACATTGGCT GCTCTCCACA TAGATCTGCA
214381  CTGCACTTCC CTCTGGCTCT GCTCCCGTTA GTTTATATGC CTGGAAAGTT CTTTGCCCCT
214441  GTTCCTTGTG CCAAAATTCC ATCTATCCTA TTGCATAGCT TATGTAAAAA CTTCCTAAAC
214501  CTTTTTTTTT TTTTTTTTTT TTTTTTTTTG AGACGGTGTC TCACTCTTTC GCCCAGGCCG
214561  GACTGCAGTA GCGCTATCTC GGCTCACTGC AAGCTCCGCC TCCCGGGTTC ACGCCATTTT
214621  CCTGCCTCAG CCTCCCGAGT AGCTGGGACT ACAGGCGCCT GCCACCATGA CCGGCTAATT
214681  TTTTGTATTT TTAGTAGAGA CGGGGTTTCA AGCCAGGATG GTCTCAATCT CCTGACCTCG
214741  TGATCCGCCC GCCTCGGCCT CCCAAAGTGC TGGGATTACA GGCGTGAGCC ACCGCGCCCG
214801  GCCAAAACTT CCTAAATCTT ATAATTATTA TCAATTTATC CTCAGATATA CTTCCACGTA
214861  CATTGTAGTT TTATTATATT TATATTTTAC ATCTTTTTTT TCAAATTTCA GTTTGGGACC
214921  CATTAGTGAG TCATAAAATC CATTGAGCGG GTTAAAATCA TTATTTTAAA AAATGAATAG
214981  AATAGAATAG AAATTGTTGG AGTGCATTGG ACATGGTAAA GTTAAATATC GATTCATGAA
215041  ACCATCGTTT GAGGCATATG TGTGTGGTTG TATGTACAAG TGTTTATGCA TATTGGTGTG
215101  TGTGTTATGT TACCCTGTAA AATGCATTTC TTACTATAGG TCTCTGTGAA ATATGTGTCT
215161  TGTTGTTTTT TAATGTAGAC TTCCAAAGCC TACATGGCAT TTCACTAGTG ACAATCAATT
215221  TTATTCACAT TTTTCTCTCC AATTGGACCA GAAGCTCTTT GAGGGCAGGG GCTGTATCTT
215281  ACCGATTTTT GTAAGTCTTT CATTTCCTGC CCCTAGCCTC ATATTAGATC ATGCAAGAAT
215341  GCAACTGTAA TCACAAGAAA ATGCTAATGG GCTGTGATAG CAGAGAGTTA CTGTGACAAA
215401  CTAAGGGATT TAGATTTGGT CACATTGGTG TTGAGGAGCC ATTGAAGAAT CAGAGAGTGT
215461  GTTACTATTA TTTGTTAATT TTAATTATAT CATATTACTT TACTGGGGAA AATCTGTGAG
215521  CTATTTTAGA AATAAATACT CTCATTGCCC AATAATTCTA AGTCTGCCAC CTCACTGTTG
215581  GGACATTGTT TAGGGAGGCC ACGAAGTCTC AGCCTTTGAT ATTTTCATAA GTGTTTTTCT
215641  CCCTTTTTCC TTTAGGGTCA GCATTTGGAT CCTTCATCAT CCTCTGTGTG GGGGGACTAA
215701  TCTCACAGGC CTTGAGCTGG CCTTTTATCT TCTACATCTT TGGTGAGTCA CTTTCTCTTA
215761  AATCCTAACG CCTCCATTTC CTGAGCATCC ATTTTGGCAC CTACACCACC CACATTCTTC
215821  CTATATGAAA GAAAATGTCC TTTATCAAAT GGAAGATGAT AAAAAATGTC AACGGTTGGT
215881  ATCATTTTTA ATCTAGTCAC ACAACCTGAT TAACACCTTC CTGGTGGTTC TGGGAAGCCA
215941  CACGCACAAG GTAGAGGAGT TGACTATTCA CATGGCACCC ACCGACTTGT GATGCAGTCT
216001  TGTCCTTCCA TATCAAGCAC CTTCTGCAGA ATCTCTACCA CCACATCTGA AGTGCCTGCT
216061  ATATGCAGTT AAGATGTCAA AGATAGTGAA GTACATTTTC AATGTGTCTT CATATTTCAT
216121  TATAATTATT ATTTCTGTCC AAGATGCCTT TCACCTGTTC TCTACCAAGT TAATCTTGCA
216181  AAGTTCAATT CAAATGTTCC CTTCCCCATG GGCCCTTCCA GGGCTTACCC TATCAGATTC
216241  TGGCATTCTC TCCTTTATGA TATTTCCTCT CTAGGTTATG TTGGTGTGTA ATTATTTATT
216301  TCTCCTTTTC TTTCCACTAG ACTGTGAAAT GCTTGAGGCA AGGAATCCAT TCTATGTTTT
216361  CATCACTTGG GTGTCATCAT GGTGCCTGAT TTTTAGCTTT AAAATAAAAG AATCAGTGAA
216421  TCCAGTAATT AGAGGGGATT TAAAGAAAAC TAGTCCTCAG AATCTTTTAA CATAGAATGT
216481  TCTTCAAATA AGGAATTCCA ATAATAAGAC AATTTTCTAC ACTTGATTTT GTTTTTATAG
216541  CCAAATGGTG TCATTAAATA TAGTCCTGGC CTGAATGGCT TTCTCATTAA TGATGCTAAT
216601  TATTTTGGTT TGTACATGTT AACCAGGTAT TGTACAAAAA TATTTCTTTT GGGAATCCAT
216661  AATGGATGTA TGGCTTGAAT ACAAATAATA CTGTCTCTTG TAAGTGCATT GGAAATTTTT
216721  CCCTGCCACA TGATTTCATG GAAGGTTGTT TCGTGTATGT ATGACTGCAA ACCTGACTAT
216781  TCAGATCTTC CGCAACAAGA CAACTTATGT GTGCATTAAG AAGTTGCTGC CTAAAATACA
216841  TAACACTGTA ATCATTGGAG ACTTTAAAGT AATTAATCAG CTATGCAATG CCACGCTCCT
216901  GTTATCTCCA GAGGGCTCTG ACATTGACAA ATGGTGGCTT TCTATTTGAG ACGTAATATC
216961  TAAAAAGCTT TAACAGGTTT GTAGAAGGAT TGAAAGAAAG AATGGGAACA TTTAGGTCCT
217021  TATGGTAGAA TAAGCATTAA TTGATTAGTG TGTAGAAGGG AGAGGCATGC CACTTCAGAG
```

Figure 8 (Page 67 of 73)

```
217081  GAAACTTCCT TCCCCCAGTA AACAAATCTA CCTAAAAACT AATTTTATCC CTTCTTCCCA
217141  GGTAGCACTG GCTGTGTCTG CTGTCTCCTA TGGTTCACAG TGATTTATGA TGACCCCATG
217201  CATCACCCGT GCATAAGTGT TAGGGAAAAG GAGCACATCC TGTCCTCACT GGCTCAACAG
217261  GTACAGTGCA CACCTTGTAC CTGTGGCCCA TGCAGAGGTC TCTAGGGCAG GGTGTGGATC
217321  TCCTCTGAGA GGCACCATCT TGGCTGCTCT AATACTCATG CTGATTAGAT CTTTCTTTTC
217381  AGCCCAGTTC TCCTGGACGA GCTGTCCCCA TAAAGGCGAT GGTCACATGC CTACCACTTT
217441  GGGCCATTTT CCTGGGTTTT TTCAGCCATT TCTGGTTGTG CACCATCATC CTAACATACC
217501  TACCAACGTA TATCAGTACT CTGCTCCATG TTAACATCAG AGATGTGAGT TTACTTCCTA
217561  TACTTCTACG AAAATGATAA TGGTAATAAG GAGAAACAGT TCTGTGTTAC CTATTACATT
217621  CTGGCTTTAC ATATAACCAT TAATTTAACC TTCACAATGA CCTTGAGAGA GGCATTGTTA
217681  TAATTCCCTT TTCACAGATG TGGAAACAGG ACACTTAGAG GTGAGATAAC TTGCCCCAGG
217741  TTGCACAATA CTAAGTGATA GAGCTGCTGC AGCATCCATA TTCTTAACCA CTATGCTATA
217801  CTACCACACC AGCTGATTCC AAAGCTTCTT TTAGAAATAA TATTGCTGGG CCAGGCATGG
217861  TGGCTCATGC CTGTAATTCC AGCACTTTGG GAGGCCGAGG CAGGCAGATC ATGAGGTCAG
217921  GAATGCAAGA CCAGCCTGAC CAATATGGTT TACTAAATAT CATCTACTAA AAATACAAAA
217981  ATTAGCCAGG TGTGGTGGCA GGCACCTGTA ATCCCAGCTA TTCAGGAGGC TGAGACAGGA
218041  GAATCGCTTG AACCCAGGAG GTGGAGGTTG CATTGAGCCA AGATCATGCC ACTGCACTCC
218101  AGCCTGGGCG ACAGAGTAAG ACTCCGTTTC AAAAACAAAA AACCCAAGAA ATTAATATTG
218161  CTTTTATCTG GAGCCCAGAG TGATGCAGCT TCTGGCCCTC TTATCTGAGA CAGTGTTCTT
218221  TTAGTGTGAA AAAGGATGCT AATTTTCCCC CAAACAACCC ACAGTATCAT GGGGGTAAGT
218281  TAATGGCTGG TCTGTGTAAC TGACAAATTT TGGTGCTAAC GTATCTCTAT AACTACTCTG
218341  TATAAACTTC CTTCCTTCAG AGTGGAGTTC TGTCCTCCCT GCCTTTTATT GCTGCTGCAA
218401  GCTGTACAAT TTTAGGAGGT CAGCTGGCAG ATTTCCTTTT GTCCAGGAAT CTTCTCAGAT
218461  TGATCACTGT GCGAAAGCTC TTTTCATCTC TTGGTAAGGA TAAGCGTGTG GGCCCATTTA
218521  ACCAATCCCT TTTCTGCACA TGGTCTCAGA GGGTTCCCTG ACAGCATGTC CTCATTGCCC
218581  AGGGCTCCTC CTTCCATCAA TATGTGCTGT GGCCCTGCCC TTTGTGGCCT CCAGTTACGT
218641  GATAACCATT ATTTTGCTGA TACTTATTCC TGGGACCAGT AACCTATGTG ACTCAGGGTT
218701  TATCATCAAC ACCTTAGATA TCGCCCCCAG GTAAGAGCTC TACCTGTTTT TTCCCCTCCT
218761  CCAGACCCCT CCAGAGGTGT TAGACCTCAG TGGTCGCCGT GAAACTCTTT AATGTTACTG
218821  ACATTGCACT AATGGCAGAA TGACAAATAA CTACAAATAT CTGTCTGTGG CCATTTTTAG
218881  AACAACAAAT GTGGCATTTT TAGAACAACA ATTTCCAATC TTGGCCAGTA ATCATTTTGA
218941  CAAAAACCTT CCCAAGCTTC CCTAACAGAG ATTGAACTGT GTATGCTGGG AAAAGGCCCA
219001  CACACAGGTG ATTTGGAAAA GTTTCCATGG TGTTGTTCAT ATTAGCTACC ATATATATAT
219061  ATATATATAT ATATATATAT ATACAGTCAC AATAAGCCAG CTCCTGTGCC AAGACTTGCC
219121  ATATATCAAC ACATCTAATC CTCACAGTTA TATTAGGTAG GCCCTATTGT TATCCCCATT
219181  TTATAAGGGA GAAGGCTGAG GCACAAGGAG GTTAAATGGT GTGACTATGG TCACATAAAG
219241  GCAGAGCCAG GATTTGGACT GGGGGAGTCT GGCTTTGGAG TCTGTGTCCT GCCCGTTGCA
219301  CAAACTGGCT TCTCCACTGA GCAGCCGGGG TAAAGAAACG TGGTTCCCAG AGAGACTGCA
219361  TTGCTCCCTG GTTATTGACT TGGTAGATTG GTAATTTCAG GTTTGGCAAA TAGACATTGC
219421  CCTGAATGTC TTTAGGTGAA TGAAAAACTG CATTAAGCAA AATGACTTTG CCATTAGAGC
219481  TGAATTGCAT TAAAGTTGAG TTGCTGCAGA AGCTGTAGGT GGCTTTCTAT ATAAAATCAT
219541  TTATAAAATC ATCTTCCCAC AGATATGCAA GTTTCCTCAT GGGAATCTCA AGGGGATTTG
219601  GGCTCATCGC AGGAATCATC TCTTCCACTG CCACTGGATT CCTCATCAGT CAGGTTGGGC
219661  CAGTTTATTG AACATCTTCA AGTGGCAGGT ATTGTTTTAG GTGTTGGAGA TACACACGGT
219721  GCTCTAAAGA TCTGGATGGC AACACAATTA CTCTATTTAC ATGAGCCTCT AAATCAGACT
219781  CTGGTAGGTC AGATTTCCCA GAGGAAGAAA AATATAAGCT TATTTTCTCA AGATGAATAG
219841  ATGTTAGATT GATTAAAATG AGCTGTTCCG GTGCAGAAGA CAGCACGTGT GACTTCCTAG
219901  AGGTACATGA GCATGAAACA GTTCTTAGTT ATGACCAGAA TGAAAGACAC ATGTCAAGGA
219961  ATAGCAAGAG ACGAAGACAG AGGGGCAAAA GAAGATCATG AAGAATATGT TCAGACTAAT
220021  CCAATTTTTA AAAAATCACA AAAGGGAAAC AAAGTGTCCT AGGCCAGTTT AAAGATAATT
220081  TAATGTCTGG AAACAGATCG GCTGTGAGAC ATTGCAAGGA GGCTTGCTCG GTGTTTGGAA
220141  ATGCAGGCTC ATGAGGAAGA TGAAAAGACA GACCCAGGCA GGGATGGAAG GACTGACGAG
220201  AACCAACTTA CAAAGAGAAG TTTTGTTTTT ACTACATTTC TATGTGATCA AGTTCCCAGG
220261  TTAATATTTG ACTAAACTGC TAGGAATCCA CTGTGACTAT AATGCTGGAA ATGACTTAGT
```

Figure 8 (Page 68 of 73)

```
220321  AGGGCTTTCT GAGGAGGGTC ACACAGAAGA CCAAAGAGAA CTCATGTTGA ATTGAGATGG
220381  GTTGTAGTGA TAGTTGTCAA CAGCCAATAC AGAAACAAAA AAAAACAAAA CAAACAGCAA
220441  CAACAACAAC AAAAAAAAAC AGAGAAGACA CAAACACAAT GCCACAATGC CATTTTAGGC
220501  ATAATTTTAA ATGAGTAATA TTATATGTTG AAATCCAAAT TTTCAGAAAA ACATTAGTGT
220561  ATTTTATTTT TGTTTAAAGA AATAACCATC TCAACTCAGA ACCCCATGTG CATTTTGGCC
220621  ATTTTGTTTC CAATAGTTTC ATAAACTTTC TTAAGTAACT ACTGCACATT GTTCCTTATA
220681  TTCCTTGTGA TCAACATTGC AATACACAAC TGGGAGGGCT ACTAGAACTG GTGTAGAAGG
220741  AACTTGTGAG ATTGATCATT TTCTCTGTTT TTTACATCTA GGATTTTGAG TCTGGTTGGA
220801  GGAATGTCTT TTTCCTGTCT GCTGCAGTCA ACATGTTTGG CCTGGTCTTT TACCTCACGT
220861  TTGGACAAGC AGAACTTCAA GACTGGGCCA AAGAGAGGAC CCTTACCCGC CTCTGAGGAC
220921  ATAAAGTTAC AAACTTAAAT GTGGTACTGA GCATGAACTT TTTAAACATT TTTTACTTCT
220981  CTCCATATTC CTGACCATAG ACTCAGCAGT TCTTAACTCT GGCTGTGTGT TAGTCTTCCC
221041  TGGGGAGCCT TTATAAGACA CTGATACTTG GGACCCACTC CAGAGATTCT GAATGAATTG
221101  GTCTGGGGTG GAACCCAGAT ACTACTAATT TTTAGATACT CCTTAGAGGT TTCTAGCATG
221161  CGCCCGGGGT TGACAACAGC TGGACAAACT TGAAAAGTCA ATTCATGTGG CCTTTGAATT
221221  TTCCTCATTG GAAAGTACTA AATAAATAAA AATTCATGTG AAAATGATCA CTGATAAATA
221281  TCTTCATGGT GGGGCAGGTT ATTGGATGCA GAGAAGATCT GCTCGGAATT GTAGCCATAT
221341  GTTACAGATC TCAGCACCGA TCGGAACTGT AAAGCTATAA TCCCCAGAAT TAAAGTTTTT
221401  ATTATTTTTT ATACATTGTA AAACATAGAC GTTTATTTAT GTGATTAAAT TCTATTAAAA
221461  TTTACATGCT AAAATAAAAT AGACCATTTT CAAATTATTT AGATCCAGAT ATTTCCATCA
221521  GATTAAACAG ATATTTATTT ATCCTAGCCC AATTGCAAGA GATTAATGAT GAGAAAATGA
221581  CCAATACAAG ATTAAATAAA TGAGGTTAAC TTAGAAATCA AGGACAGAGA AGATAGAACT
221641  GGAAGGCTTG TATTGTGAGA AGAATGAATG TGAAGGAAGG CAATGTAGAC ACTTCCAGAA
221701  GGGATAGCAA TATAGTTTAG ACCATATAAT GAAAATTGGA GAGAGATGAC AGAGACACTT
221761  TCAAGTGAAA TGACAATTTA TATGGGGGAG AAAAATATTG AAGACATAAC AAGATGAGAA
221821  AAGGCATAGA AATGTATCAC ATACAAGGCA TAGAAGTGTA TCACATACAA GAGAAGTTCC
221881  TTTTGAGCGT AGAAAAAGAT AATTTAACCT TCTTCATATT TTTCTTACTT TCCCAAGATA
221941  CTCAGATAGG CAGCGTCAAC TCTAACAGGA ATTAATTTGG CTCCTAACAC TTAAGACATA
222001  TCCTTTAGTT TGTCTCCTCA CACAGAACTG ATTCTGGTTT TGCCACAACA TGTCTAGAGA
222061  AGAAGTTCCC ACCATATTTT AAATCCTATT AAAAAACTGC TTGGACAAGA ACCTTGGGTT
222121  AATTCAGCAG ATGAAGAGAA TCTCCTAATG CAAATCAATG GGTATTTTTG AGCAAGTTTT
222181  TCAGAAAAAC AGAGTGTCAG GCCCTGAGGG TGGTACTAAG ATGAGAACAT TGATTTTGCC
222241  TTCATGATAT TGACAACACA AAGAGGAAAG GGGGTTTGCA GAAAACTAAA AGAAGAAGTA
222301  GAAGAAAAAA GAAAGACATA GTATAATAGG TAGTCAAATT ATGTACAGAA AAAAGAGAAA
222361  AAAAAAACAA AAAAGGGTGG GGGACAGACA ACCCAACTAA AAAATGGGCC AATGACTTGA
222421  ACAGGGACTT CATAAAAGAG AAAATGTAAG TGGCTCCTTA ACATATAAAA AGATGTTCAA
222481  CTTCATTAGT CATTACAGAA ATGAAAATCA AAACTACAAT GAAATACCAC TATAAAATTA
222541  ACTAATGGAT AAAATGAAAG GAGATGGAAA ACAAAATGTT GCCAGACATG TGGAGCAACT
222601  GGAACTTTCA TACGTTACGA ATGTGAACTT TGGAAAGCTG CTCGGCAATA TCTCCTAAAG
222661  CTAAATGTAC AATTCCAGTG ACTCAAACAT TTTACTTAGA AATGCACATA TACATCCATA
222721  AAACATGTAC AACAATGTTC ATAGGAGCAC TATCTGTAAT AGCCTGAACA GGAAGTTGTC
222781  TGTTAAAAAA AGAATGAGTA AATAAACCAC GGTCTATTTG TATAGCAATG AGAATTAACA
222841  GACCCCAATA TATAATAGAT GAATGGGTCT CATAAGCACA ATATTGATTA AAGGAAGACA
222901  AAACGCACAT TCTTTTAAAG GTTTATAAAA TACTTTTTAA AAACAGCTAC AACCAATCTG
222961  TCCTGTTAAA AATCAGTGAG CGATTTCCCT TGTGCAGGGA TGGGGGTTGT GGCTGGATGG
223021  ATGGTACTTA AGAAGTGCTC CTGGGGTACT AGAAATATTT TATTTCTTGA CTTGGATGTG
223081  TGTTTACTTT GTGAATATTG TACATTTATG ATTTGTGCAC GTTTATGAAT GTAGAAAATA
223141  AAACAGAAAG CAAATTCAAA GTATCATCCT TTTGAGAGCT TCTGCTCTGA CTTCGTTTTG
223201  ACCAATGGAG CAGTTGGGAA GGGGTCTTGG TCCTTCGGTC CTTTGCTTTT TTTTTTTTTT
223261  TTTTTTTTTT TAGACAGAGT CTTACTCTGT CGCCCGGGCT GGAGTGCAGT GGCTCGATCT
223321  TAGCTCACTG AAAGCTTTGC CTCCCGGGTT CATGCCATTC TCCTGCCTCA GCCTCCCCAG
223381  TAGCTGGGAC TACAGGCACC TGCCACCATG CCCGGCTAAT TTTTTGTATT TTTTAGTAGA
223441  GACGGGGTTT CACCATGTTA GCCAGGATGG TCTCGATCTC CTGACCTCGT GATCCGCCCA
223501  CCTGAGCCTC CCAAAGTGCT GGGATTACAG GTGTGAGCCA CCGCGCCCGG CCCCTGGTCC
```

Figure 8 (Page 69 of 73)

```
223561  TCTGCTTTCA TGTTCTTCTT GGTCCTGTTC CTCCTCCTCT TTTGTTGGAA CTTCCAGTAT
223621  CAGAGCAGGA AGGAAGGCAA TGGGTCAATC GATGCTGTCA GCTTTTGGAT CAAACTGCAA
223681  GTTCTCAAAC AGCAAAATTA ATGAGCTCAG GCTTTGAAGA AACCATGACC CTGAAAGCAT
223741  CAGTTGCTTC CAATTGCATC AGTTGCCACG GGTGATAAGA ACAATGATGA CTCAGAATGC
223801  CTAGGTTTTC CCAGCAGCTT CTCTGAGGTT TTCCCAGCAG CTTCTCTGAT TGATTCCTGA
223861  CAGATGACTT CGGTGTGTCA GACTTTCAGG GTATCTTTCC TTATGTGATG GTTTGAGGAA
223921  GAGTTACCAT TCACATTCCT AATGGCTTCA GAATAGATGC AATTGTGAAC TGATAGGAAA
223981  CATTTCTAAT TCATCTCCCC TCCCCATCCC TAAAGGATTG TTTCTAACAA TAGTCATGAA
224041  AATTAATTCA CTTTTCTCAA ATAGTTTATT GTCATCTACC TAATGATGAG ATGACTTACT
224101  TTTTCTCCTT GACTGTTAAA TATTATGAAT TATATTAATG TATTTCTTAA TGTTGAGCTT
224161  TCCCTTGAAT ATTCTTTTGA TGTACGACAG AATTTGATTC ACTAATAGTT TATTTAGGAC
224221  TTTGGCTGAT GTACTGATAT ATGAGATTGG CTCTGTATGC ATACATGTGT TTTGTGTATC
224281  TTTTTTGTGT CTGGATATGG AGCTTATGCT GATTTCAAAA ACAAGAAAGG AGAACTTTCC
224341  TTTTTCCCCA TTACTCTGAA AAAGATTGAC TAGAATGGAA TTTTTATAAT TGCTGTTGTT
224401  ATTTGAAAGC TTGAAAGCAT TGGTTTGTAA AAATCATGCA GGCTGAAAGC CATTTTGAGG
224461  AGACTTTGAT AACTTTCTCA ATTTCCTTCA GTTACTGGTC TTTTAAGGGG TTTTATATTT
224521  TTCTTTGATC AATTTTGACC ATTTATGTTA TCTTGGAGGA TCATCTATTT TACACACTAT
224581  TTAAAGTATA TTTGCAAAAA TTCAACTGTT TTATCAGGCT ATCTTTTTAA TAATATATTC
224641  ATTTTATCTA TATCTGAGGT TTTAGCTTCT TTGTACTTCT GACCCAATTG CATGTGTGCT
224701  TTCTTTCTCC TTCATTAGAC TACTTAGTCA TTTACTAATT TTAAGAATAG CTTGTCTTTT
224761  ATTTATTTAC TTATTTATTT TTGAGACGGA GTCTCACTCT GTCACCCAGG CTGGAGTGCA
224821  GTGGCGCGAT CTCGGCTCAC TGCAACCTCC GCCTCCCGGG TTCAAGTGAT TCTCCTGCCT
224881  CAGACTCCCG AGTAGCTGGG ATTACAGTCA TGCACCACCA TGTCTGGCTA ATTTCTGTAT
224941  TTTTAATAGA GATGGGGTTT TGCTATGTTG GCCAAGCTGG TCTCAAACTC CTGACCTTAG
225001  ATGATCTACC CACCTTGGCC TCCCAAAGTG CTGGGATTAC AGGCATGAGC CACTGCGCCC
225061  AGCCCTGCTT GTCTTTTTAT TTTATATTTG ATTAGCTTTA TCTTTTATCA AGCTTATGTC
225121  CTATTTCCCT TTGCTTTACT TCATATAAAT TTTGTTTTGG ATAGTTTATT TATTTTTCAT
225181  TTAATTATGA AACAGGTTAA AGCTTAGAGG AAAATTGCTC CTCTAAGTCC AATTTTGTGG
225241  GCAGATTACA TTTTGCTGTG TTGTGCTCCC AAATTCATTG TTCTTTTAAT GCTTTATTTC
225301  TCAAGTTAAT AACCTATATA GTAAAAAAGT GGCTGTTGAC TCTCAGCTTT TTTTTTTTTT
225361  TTTTTTTTTT GTAGATACAG GGATCTTGCT GTGTTGCTCA GGCTGGTCTG AAACTGCTGG
225421  CTTCAAGGGA TCCTCCTGCC TTGGTCTCAC AAAATGCTGG GATGACAGAC ATGAGACACC
225481  ATGCCTAGCC ATGTCTCTCT CCTTATATAT AATAAGAAAA CAGACACACT GAGGCATCCT
225541  ATCATCTCAC TCTTGGTTTC ACTACTGTTC TCTGGAAGTT TTGCTCTGAC CTTTTGCAGT
225601  TAATGTATTA ATTTTGCATT GAGTAGTTTC CATAGAAGAA TTATAGCATT TGCATTCTGT
225661  TGGGTATTAT ACTTTTCACT GTTATTTGAA CATAATTTGA GGGCTGAAAC CAAGATGAGG
225721  CAAGTGAGGT GCCCAGGAAG CAATATTTAA GGAGGCATCC TTTCTTAGGC TCATGCAAGA
225781  ACAGAATTGG CACATGAGAG TGAGTGCCTC CTTAATTTTG AGTGCTGGAC ACTTCTTGCT
225841  CACTTAGCAT ACCCCTGGAC AATGAAGTGT TTTTTGTTTT GTTTTTTCAT GTCCATCCTT
225901  TATCCTTCTT CATCTCAAAA CATTTCAATG GAGTATTTTT TTGGAGCAGT ACTTGGATGA
225961  GCCTCTGAGT CCCACAGTAG CTGAGAATTT ATTTCATAGT ACTCTTTATG ATCACTGTGG
226021  AGCCTTAAAA CATTGTAATA TTAACTTAGC TGGGAACAGA AATTTTGTTC CACAATTTGT
226081  CTTATTCAGA ACAGTATTGA CTTCCTGCTA GTCTCTTCTG ATGTCCAATA TGAGGAAGTC
226141  TAGTTAGCCA GCTACTTTTT GTAGGAGAGC TATGTTTAGG CTAGGTGCTA TAGGATTCTC
226201  TTTATCCTGG AATTCCTTCA CCAAGATGTG CCAAGGTGTT AATCATTTTC TCTTGCTTTT
226261  TGGCTGGTGG TCTTAGAGTT TCCTTCGATT TTGTTTTATT TAGTGATTGT CCTCAATTTG
226321  TTTTCTTTAC TAAGAATCTC TCTTCTATTT ATCTGTATGG TAAAACCTTG TTGCCCATCT
226381  TTCTGGTTTC TGCTGACTTT CATTTTTGGA CCTTTTACTT TGCTTTCTCC ATGGACTTTT
226441  TGGTAGTGGA GGCAGGCAAA CACTTTCCAA AGTCTTTCTC AATTTCCATC AATTTCAACT
226501  TATTTCCTAA AATTGCCTCA GAATGTGCCT ATGTCCACAA TATCCCTCCT TCCACTTTAG
226561  AAAGGAAAGG CATCCACACT TTATTTAGGT GCAATGCCTG AAGTGTAAAC ACTTTCTGGT
226621  TGTCAACAAA GGAGTACTTC CAAATATTGG TTTGGGGATA ACCTGCTAAT GATTAACACA
226681  TTCACCTTGG CTCTTGGTTT GCCTGCTCCC TCTTCTTTTA TCTGCTGTGT GTATTTTTTT
226741  TAATCACTGA GAATATGCAC AGTATTGTAT GTTTTATTAT AAGAGAGGAC TGGCCAGAGT
```

Figure 8 (Page 70 of 73)

```
226801  GGGAATGTTC TGAATTCAGA ATAACTGAAG CAGTACAGGA TAGGAACTCA TTCTTTCAAA
226861  TGAAGCTGGC ATATTTTCCC AGAGCACCAA ATTTCAATAT ATATTTAAAA AACTTGATAT
226921  GAATGATACA ATAAAGTGGT TAGAACTTTT ATTAAAATAA ACTTATGTCA TGAAATACTT
226981  ATTCTAATTA TAGTCACTCT TCATCTTATT TCATCTTATA ACATGTTTAA TGTTTTCTTT
227041  TATTTACAAA ACAATTTATT TTTTGATGAA AAGTTTTAGA AATCAAGTTA AAAATATTCA
227101  AAGGAATGCC TAAAGTTTTC AAAATTCTTT TACATGTTGT ACAATCAAAA GAGTCTGAAG
227161  ACCATTTAGC TATCCAAATT GTTTATTTTT AAGCAGTATC CCTTCTAATA TTTACTATTT
227221  ATAATCCTTA AAAATTTGCC TTAGCACAGG AGAATTGCTT GAACCCAGGA GACGGAGGTT
227281  GCAGTGAGCC AACACAGTGC CACTGCCCTC CAGCCTCGGC GACAGAGTGA GACTCTGTCT
227341  CAAAAAAAAA AAAAAAAAAA AAAAAAAAAG GCCAAAAACA AATAAACAAA CAAAAAAATC
227401  CGCCTTAACA TTATTTGTTC ATTAAAAACT TTCTTTAATA CTACTAGTTT CCCTTTCCTC
227461  TCAGCCCATT GTCATATTTT GATTTTTATC ACTTGCTTTG TAGGACATAT GAGGTTTTTG
227521  TTTTTTTTTT TTTTTGGAGA TGCAGTCTCC CTCTGTTGCC CGTGCTGGAG TGCAATGGCG
227581  CAATCTTGGC TCACTGCAAC CTCTGCCTCC TGGGTTCAAG CAATTCTCCT GCCTCAGCCT
227641  TCCAAGTAGC TGGGATTACA GGCACCCACT ACCACGCCTG GCTAATTTTT GTATTTCTGG
227701  TAGAGACGGG GTTTCACCAT GTTGGCCAGG CTGGTCTCGA ACTCCTGACC TCAAGTGATC
227761  CACAATCCTT GGCCTCCCAA AGTGCTATGA TTACAAGCAT GAGCCACCTG CCCAGCCAGA
227821  ATATATGTTC ATTTTGAGTC CTTTAACAAA GTCATAAGAA TTTTAGGAAT TCAGTTACTT
227881  TCTTGAGAAA ATCTCTGAAA AGATGCCAAT AATTTGTAGC CAATTATATT GATTTCTCTT
227941  TTTCATATTG AGAATTGTTT TTTAAAAAGT TTGTATGTGT GAAGATTTTT GCACTGTAGT
228001  TAAAGAAACC ACCTGTGTGT TGGTTAAGCC ATAAGTACAT GTATTCAAAT AAATTGAGGT
228061  GGGGTTACTC TGAGAATCAA AGGAAAACCT GAAGAAACAG GCAGCCTCAA AAGGTCTTAG
228121  CTGTAGCAAC TTGCTCCATT GTTGAAATAA ATAGGCTTGA ACTTGTATTT TCCCTCTACT
228181  CAACATTTAA GGTCTCAGAA GATAATATAA TTGGTGAAAT TTAAGTAAAG TGCTCACTCT
228241  TTTGCTTTAA CAAACCCTAG AGAGCTGGTA GGCAGAGCCT CAACAGACCG TTTTAGCTTC
228301  CAAAGGGAGT TCAGGACACC ATGATTCACG ACCACAATAC ATCACACATA ATTGAGAAAA
228361  GATAGTTCCA CCAAATAAAG TTGAAATGCT GACAAGAAGG GGTAAGAAAT CTTGGAAATA
228421  AGTTTATATA AAATTTATTT TTTCCTTTTT TATTGTTATG GAATAGGACC AGTTCTACTT
228481  AAGCCACCCA TTTGCCAAAA TAAAGTGAGA ATCGTTTCTT TTGGGGACTC CTCTTTGTAG
228541  CTCCAAGTGC CACTAACAAT TCTTAGGACC TGAGCTATAA GCCAGGTGAT TTCAGTTAAT
228601  ATGATCAATT ATTTCATTTA AATGGCTCTA ATGTGCAGAG GGAACGGAGC CCATCAGCAT
228661  TCCCTGCAGG GAACTGCAGT GGCTTTTATC AACTTGAACA GCTAGCTTTC AACTGTTTTG
228721  AAATCACTTT CAGGGTGGTC ATGTAGTTGC TTTTTTGAAA TCAGAAGATG ATTCTGCCTC
228781  TTTTAATATG TGACTCCTCA GATTCAGAAA GTGCTCGCTA GTCTTAAGAG TGAATTACCC
228841  TCAGTGGTCC AGCGCTTATG AACCCACATC TAACCCTATC CCCTGGGGGA ACTATCAGAG
228901  AAATTGGTGC CATGGACATA AGAGGAAGGC ACAGTGAAGC AGAGAGCCCC GCATGATGAA
228961  AATCAGTGGA CAGCATCATT ATTTACAACT TTGTAATCAC CCAGGAGCAT GAAAATCCAG
229021  GCCAATCTGG CACCATGAGC TCTAATTTTT GTTGGAGTTC TTGGAACCGA TTCTGATGAA
229081  TGACTGTTTA GCCATTTTAG AGTGTGGCAT ACGTGGCTGC TGGCATACAG AGGTTGGATG
229141  TAAACGGGCC TTTGCCCTCT CTTATGAACA TAGACAGGAA CTAAACTGTG TCACATAGGT
229201  TCCAAATGGT GGCCTGAATA CTATTTACAA CTAAGGTACA ATGAAATTGA GTAAGTCTTT
229261  TCCTCTTTTG CAGATACCAT CATTATTCAT ATATTTCTTC AAAGTTAACT ATTTGTATTT
229321  GGTAATTTTT AATAGAAATG TAATAATTGC TTCTCAAGTT TAGTCTTTAG TCTTAAGGTT
229381  GATGCTCTCC ATGTCCTTCC AAAAAAAGGT ATGTTGCTTT TATTATATCC TCGCCTTCAG
229441  ATGGGATTAT TCCATTTTGT TCTTTGTTAA TATATACTTT GAGCCACTTT TTTTGTGGCT
229501  CTGGGTGAGA TGCTATAGGT ACAATGACAA GTGATACGTG TGTTGTCCCT GTCACAAAAG
229561  TGGATAGCCT AAGTGGTGAC TTTTACCTCC ACTCCAAATA TATGTATCAC ACACCAGCCG
229621  TATGCCAGGC ACCACTCTAG GTGCTAGGGA TACAGCAGTA AACAGACAAA TGCAACCCCT
229681  GCCCATGTGA AAGAGAATAA GACAATAAAT AAGTAAAGTG CATGTTATAT GGAGGTGGCA
229741  AATGCTAAAA AGAAAAATTA AGCAGGCAAG AGGACTCATT GAAAAGATGA CATTTGGGTA
229801  AAAGCCCATG TATATATGTT CTATTGGTTT TATTTCTCTG GAGAGCCCTG ACTAATACAC
229861  AATGACTTTG AGAAGTTACT GGCTTTTGAT TTATCACACT ATTCGGAGTG CTGAGAGCCT
229921  TCTTAGTGTG TATTCAGTGT TTTAAGAGAG CTTGTGGATG AATAATAAAT AGGACAAAAT
229981  TTATCCAAAC TTAAGCCTTG CTTTAGGTAA AAGGGCTCCT CTTACAAGGT AGAAGGTTAT
```

Figure 8 (Page 71 of 73)

```
230041  TATTTGGCAT TTAAATCCAA CTGAAGACTA ATAAGACTAA TTAATTAAAA GTTTTTAAAT
230101  CACAACTGGG TGCAAAATAA ATGGAACTGC CATGCTCGCC AAGTGTGCAT GAGTGGTGTG
230161  CATGGGAGAC AGCACGAAGC TAATCCCACT CATCTTGCAG GTTGCTCCAT TTTTCTCCTA
230221  AAATCAGTAA GACAGAAGCT GGTCAGATTA TCAAGAGCCC TAGTTAAACA CAGCAGTAGC
230281  ATTTGGAAGG GGTTGCTCTC ATTAGGCAGT GCCTGACCAC AACAAGAGAT GAACAAGCCC
230341  TGTATCTGAA GCCATCATGC CTAGTTATGG TCCCCCACTG TTCATGATGC CTGAAAGGGA
230401  GGCCCCCTGC ACCCTAGAAA GCTGGGTGGG TTCTACTGTC TGCTTTACTG CTAAAAACCC
230461  TCTTCTTTGG ATCTGGACTT TACCTCTATC TGATTTTTTT TTCTAATATA TGATTTGGCA
230521  CTGAGTCTGT CACTGCTGCT AACTCAGCAG TTCTAGGGTC ATTGCCCCAT TGCCTCACAG
230581  AAAGAATTTC ATAGCTTCCA GCATCCTCTC TCCTTCATTA TACTTTGATT TCAGCATTGC
230641  TATTTTTTCT CTTGGGTGTT GCAGCTCTCT CTCTCCTTCC CATGTCTTGT TGGTTTTCTG
230701  CTAACTCCTG CTTTTTTTCT TTTTTTTTTT TTGAGACGGA GTCTCGTTCT GTCACCCAGG
230761  CTGGAGTGCA GTGGCACAAT CTCGGCTCAC TGCAACCTCC GCCTCCCGGG TTCAAGCTAT
230821  TCTCCTGCCT CAGCCTCCCA AGTAGCTGGG ACTACAGGCG CTCACCACTA TGCCCCACTA
230881  ATTTTTGTAT TTTTAGTATT GCTGTCATCA ATCCACATGT CCAGAAGCAC CTAGAAACTC
230941  TAATTCTTTG TAGGTATCAA ACCCTAGGAC TCTTTCCTCT AATCACAATA TATAATCCCT
231001  GATTCCCAAA CACGGTCTTT TCATATACAT TTTCCACTGT ACATACTTTC TGACCTGGAA
231061  AGCTCTTACA CAAACACGCC CTCCCCTAGG AAGCCTTTAT AAATGTTCCC AGGAAGAATC
231121  AGTCACCCAA CAGTGTCCTT GTCACATCTT AGGTTCTACA CCTTTATTTG TTCTATCTGA
231181  ATGTAATCTC CCAGAGGGTG TTATCATCTT TTTTTTGAG ATGGAATCTT GCTTTGCTGC
231241  CCAGGCTGGA GTGCAGTGGC ATGATCTCGG CTCACAGCAA CCTCCACCTC CTGGGTTCAA
231301  GTGATTCTCC TGCCTCAGCC TCCTGAGTAG CTGGGATTAC AGACGTGTGT CACCACACCT
231361  GGCTAATTTT TGTATTTTTA GTAGAGACAG GGTTTCACCG TGTTGGCAAG GCTTTCCTCG
231421  AACTCCCAAA CTCAGGTGAT CCACCCGCCT CAGCCTCCCA AAGTGCTGGG ATTACAGGTG
231481  TGAGCCACCA TGTCCAGCCC CATCTTTTTC TTTTAGTTTA GTTCTTAACA AATAGTCTGA
231541  CACAAAGTGG ATATAACAAT ATTTTGAATT ATGAATAACT AAATGAATAT TTCCAGATTT
231601  CCTGGTGCTC TCAAAGTTTT ATGTTACAAA AGAAAAACAA GTCTAAAATA CCTGCCTCAA
231661  GTTTTTATCT GTACTATGAT TTCAAACCAA ATAAAAAACA GGTGGGGTAA AAACTGAAAC
231721  AGGAAATACA TATAACTGAA AAATTTTGGT ATGTTAGTAT GATAATACTA GGTCATTTTT
231781  CCTGTTTCCC CAACTTCATT TTCTATAGCA ATAAAAAGAA ACAAGTAAAT GTATATTAAT
231841  TTAATTTAAA AGAAGTAGTC TACCATCTCT TCTGTTAAAA AGAAAAAAGT ATTTTAAAAA
231901  ATTATCTCTG GAAGGATACA CAGGGAACAT TGCTCTGGTT TCTTCCAAGA GAGAAATGAG
231961  GAACTAGAGA GCATGGCCAA GTGGGGTTTT GCTTTTGTTT TTGTTTGTCT ATCTGTTAGC
232021  TTTTTATTAT TTTCTTTTGT AGGTTTGAAT TTCAAACCAC ATAAATCTGT TACATGCTCA
232081  TAATAATAAG TTTAAAATAA AACTTTTGGC TGGGTGCAAT GACTTACACC TGTAATCCCA
232141  GCGCTTTGGG AAGCAGAGGT GGGAGGATAC TTGAGGCCAG GAATTTGAGA TCAGCCTGGG
232201  CAACATAGTG AGACCCTGCC TCTGTAGAAA TAAACAAAAA TTAGCTGGAT ATGGTGGTGC
232261  ATGCTTGTAC TCCTAGCTAC TTGGGAGGTT GAGGCAGGAG GATCCTTTGA GTCCAGGAGT
232321  TTGAGGCTGC AGTGAGCTAT AATCACCCAC TGCACTATAG CATGGGCAAT AAGGTGAGAA
232381  CTTGTCTCAA AAAAAAAAAA AGGGGGGGGG AAACAAATAA ATAAATATAA ACAAAACTTT
232441  TGTTTCAAAA TATGTAATAT TTAGCACTAA AGAATTCTGA ATTGTAGAGC TAAAAAGTAC
232501  TTAAAAGTTA ATAATTATTG TCTCCTTTAA AAGAATTGTT ATCAAAGTAT AATTTTTATC
232561  CAGAAAATCA TCCATATCAG CAAGCTAAAC TTTCTCAAAA TGACATATCC ATGTAATTAG
232621  CTCCCAGGTA ATTAGCAGGC AGCCTCTACT CAGGTTGAGT ATTCCTAATC TAAAAATTGG
232681  AAATTCAAAA TGCTCCAAAA TCGGCAACTT TTTGAATGCT AACATGATTC TCAAAGGAGT
232741  GCTCATGGAA TATTTCAGAT TTTGGATTTT TGGATTTGAG ATACTCAGTA TAATGCAAAC
232801  ATTCCAAATC TGAAAAAATC TGAAATACTT CTGGTTCTAA GCATAAGGGA TACTCAACGT
232861  GTGTTAGCTA ATTAGACCCT TCATGGTCTC TTCTAGACCT CAGCTTCTTC AAGGTAACCT
232921  CTATCCTCAC TTCTAATAGC ATGAACTTTT CTGTTTTAGA ATAATTTGGA TTTTCAGGAA
232981  AGTTGCAAAG ATAGTACAAA GACAGTACAG GAGAGTTCCC ATATATCTTT CACCTAGCTT
233041  TCCCCCATTG TTAGGATTTT ACATTATTAT GATACATTTG TCAAATATAA GCAACTCACA
233101  TTGATACATG AAACTCTATT AACCAAACCC TAGACTTTAT GTGGATTTCA CCACTGTTTC
233161  CACTAATGTT TTCTTTCTGT TCCAAGGTCC AATCTGGAAT ACCACACTGC ATTTTCTTGT
233221  CATATCTCCC TAGTCTTTTT TTGTCTGTGA CAATGTCTCA GTCTTTTCTT GCTTTTCATG
```

Figure 8 (Page 72 of 73)

```
233281  ACCTTAACAG TCCTGAAGAT CATTTGCTTT TTTTTCATAA TTACACCGGA GTTATAGATT
233341  TTTTGAAATA ATACCACAAG GGCAAAGGGC CCTTCTTGTC ACATCATTTT AGGGAGAACA
233401  TGATATCCAC ATGACATCAC TGATATTAAC CTTCATCATG TGGTTTAGGT AATGTTTCAG
233461  GTTTCTCTAC TGCAAAGTGA TTTTTTTCCC TTAATTTAGC CCACCTGAAC TTATCAATTT
233521  TGTTTTCTTC CATGACTAAT ACTTTTGTTA TTATAGCTAA AACTTCATTG GGGCCAAATC
233581  TTAGATCATG TAAATTTTCT TCTATATTTT ATTCTAAAAG CTTGTAATGT TTGATACATT
233641  CTAAAAGATG TAATGTTTGA TACATTACAT CTAGTCCTTT GATTTATTTT TAGTTACTTT
233701  TGTATAAGGT GTGAGAGATG TCTCCAGTTT CACTTTATTA ACACATTGTG GTGTTCCAGT
233761  ACTATTTGTT GCTAAGACTA TCTTTTTTCC ATTGATTACC TTTGCCTTAG TTGGCAATAT
233821  TTTTGTTGGT TTATTTCTAG ACTGTTTATC TCATTCCACT GATTTGTGTC TATCTTTTTG
233881  ACAAAACTGT TGATTACAGT AAGCTTTGAA ATAGTTCATT TTTTGTGTCA ACTTGACTGA
233941  GTCAGGGGAT AACCAGCTAT CTGGTTAAAC ATTATTTCTG GCTGTGTTTG TGAGCGTGTT
234001  TCTGGATGAG ATTAGCCTTT GAATAGGTGA TCCTAGTAAA GTAAACTGTC TTTCCCAGTG
234061  TGGATGGCAT TATGCCACCT GATATTCAGG GTCTGAATAG AAGAAAAGGC AGAGGAAGGG
234121  GGAATTTGGG CCTTTTTTTC TGCCTCACTG CTTGAGCTGG GACATCTCAT CTGGTCTCCT
234181  GCTCTTGAAC TGGGATTTAC ATCATCAGTT CCTCTGGTTC TCAGGCCTTC AGATTCAGAC
234241  TGAATCATAC CACCAGCTTT CCTGGGTCTC CAGCTTGCAG ATTACAGATC ATGGGACTCC
234301  TCATCTTCCA TAAATGCATG AGCCAATTCA GTCTATGTCC TTGAAAACTG CCCCACTGCA
234361  GATTAAGGCT TTTTTCCACT AGGTGAAATA AAGAAGCTTG TTAGACAGAT TTCCCTTCAT
234421  CCAGTGCCCT CTCCTCTTTA AGTTACAACA CATTGGCTAC ACCTAAGTGC AGGGGTGGGG
234481  ATGAGGGTAT AGTCCTCTTG TTTGCTGAGA AGAGAACTGT ATTGGGAAAG CTCTAGAAGT
234541  GTTTGATACA TACATAAACA AGGCATGGTT TTTGCACTTA ATTTCACATT ACATTTTTCC
234601  CAGAAAAAAA GGAATGTATA GGCATCACGT AACTGTACTA GCTGGAGTCA TTCTTCCTGA
234661  TTATCAAAGG TAAACAGTTA TTAATCCTAT ACCAAGATGT CAAGGAGAAG TACTTTTGGA
234721  ACACAAGGAA TTCTCTGGGA GTCCTTACTA CTCTCAAGCC CAGTGAAAAA GTTAATGAAA
234781  AACTATAGTA CCTTCCTATA AGCTGGATGA CTAATTACCA GGCTCATTTA GGAATTTGCC
234841  TTACCAAGTA AAACATAAGG GCAGCTGAGG TGCTGACTGA AGACAAATGG AGCATAGAAT
234901  AAGAGTAGTA AAGAATGCCA AAAATGCTGT CATGTATCCA TTGACAAAAG GAGCTATAAA
234961  GCCTTTAGGT ATTTTCACAC TTGCTCTGTT ACGTAAATGT ATGTGTGTGT GTGTGTGTGT
235021  GTGTGTGTGT GTG
```

Figure 8 (Page 73 of 73)

```
   1  CACACACACA CACACACACA CACACACACA CACAAATGAG GTATATAAAG GGTCTCCTAA
  61  AATGTCATCT GATATTTGTT ATTTCATATT CTCAGATTTT TAATCCATTT AGGTAGGTCT
 121  ATTTTAGATA GCCTTGTCTG AAACAGAGCT GGGACCTGAT GAGTGAAAAT GAGCTCACCA
 181  GAAGAAAAAT CAAACAGGCA TTTCAGAGAT TGAGGCCAAG AAGTTAAATG TCTTAAATGG
 241  GCAGAGCTTA GCTGCTTGAT GTGAAAAGAG ACCAGCGTGG CTGGAACAGC AAAGGAGAAC
 301  AGCAGAAGAG GTGAACAGAG GCCAGAGATG GTCACTGAGT GGGCCCTTAA GTCATGGTAA
 361  GGAGTATGGA GAATGAATTA TTGCATGTAT TGAATATGTA GGTGACGTGA CTCACAGATA
 421  CTTTGGATTT GTAGAGATGA AGGAAATGTA GCAAGTGACA CTCTTAGAAT GTTGATTTGA
 481  GTAAATGGTA GTGTCAGTTA TTGAACTGGG GAGAACTGGA AGGGATAACA GGCTTAAGGA
 541  GCACGTTTAT TCCTGTGTCT TGGAAGTGTT TAGGGTGAAA GACCTATTAG AGTTCTAAAT
 601  GGAGATGTCA AGTGAAAATG TGGCTACACA CATTTGCATT TCAGAAAAAA GGTCAGGCTG
 661  GAGATGTAAA ATTGGAAGTT TACTGCATAT AGATAGTCTT TGGAACCGTA GTATTGATGA
 721  AGCCATTAAT GAGACAGAAC AAAGACTAGG GACCAGAGCC AAGCTCCAAG TTTCTAAAAT
 781  TTAGAGGATA GTATAGTCTG GTCATTTTGA GGTGAATACT TAATAACAGA ACAATTTGCT
 841  GAAGTGTAAA TTTAGAGCCC TACACTTTTA GCTCTGACTA TTAACGAATA CAGGAAAGAA
 901  TGGATATGGT TATCTGCCTG GTGTCTGTGA AATAATTTAA GCCAGGAAGA GATCCTCACC
 961  AGAAACTGAC TATGCTGGCA ACTTGGATCT TAGATTTCCA GCCTGCAGAA TTGTTAGAAA
1021  ATAAATGTCT ATCGTTTAAG CCACCAGTCT GTAGTATTTT GTTATGGCAG TCCAAGCTGA
1081  CTAAGTTTTG GTACCCAGGC GTGGGATGCT GCAACAACAA ATACCTAAAC ATGGGGAAGT
1141  GGCTTTGGAA ATTGGTGATG GGTAAAGGCT GGAAGAGTTT GAGGTTCATA CTAGAAAAAG
1201  CCAATTGTGA AGGGACTATT GAAAGAAATA TGGACATTAA AGGCAATTCT GGCAAAGGCT
1261  CAGAAAGGAA GAGAGCTGGA CAGAAAGCTT CCATTTTCAT AGAAACTTAG ATTTATAACG
1321  ATCATGGATA GAATATTAAA TATGCTGGTT AAAATATGGA CTTTAGGCCA GGCGTGGTGG
1381  CTCACGCCTG TAATCTCAGC ACTTTGGGAG GCTGAGGGCA CAGATCACGA GGTCGGGAGT
1441  TTGAGACCAG CCTGGCCAAT ATGGCGAAAC CCTGTCTCTA CTAAAAATAC AAAAATTAGC
1501  TGGGCATGGT GATGTGCTTC TGTGGTCCCA GCTACTCGGG AGGCTGAGGC TGAAGAATCG
1561  CTTAAACCCG GGGGGTGGAG GTTGCAGTGA CCCAAGATCA CACCACTGCA CTCCAGCCTG
1621  GGATACAGAG CAGGACTCCA CTCCCCCCGC CACACACACA CAAAAAATAT ATATATATGG
1681  ACATTAAAGT CAACTCTTGT GAGGTCTCAG ATGAAAATGA GGGACAGGTT ATTGGAAACT
1741  GTAGAAATCA CTGTTCTTGT TACAATGTGT CAAGAACTTG GCTGAATTAC GCTGTAGTGT
1801  TTACTGGAAA GAACTTATAA GCAGTAAAAC TGGATATTTA CCAGAAGAGA TGTCTAAGCA
1861  AAGTATTGAA GGTGTGATTT AGGTCCTCCT TACTGCTTAA AGTGAAATGT GAGAGGAAAG
1921  AGCCGAAATA AAGAAGGAAT TTTTAAGCAA AACACAATCA GAACTTGGAG ATTTGGGATA
1981  GATTTCTCAA TCTATATTGT AAAAATTGAG AAAGTTTTTC TTGAAGAGGT ATGGTTGAAC
2041  AATGTTTTCT TTTTCTTTTT TTTTCTTGGT TTTATTTTTA TTTTTATGTT TTTTGAGACA
2101  GGGTCTGGCT ATGTCATCCA GGCTGGAGTG CAGTGGCACA ATCTCAGTTC AGTGCAACCT
2161  TTGCCTTCAG GCTCAAGCAA TCCTCCCACC TCAGCCTCCT AAGTAGCTGG GACTACATGT
2221  ATGCACCACC ACACCCTGGC TAATTTTTTG TTGTTGTTTA TAGAGATGGG GTTTTGACAT
2281  GTTGCCTAGG CTGGTCTCTA ACTCCTGAGC TCAAGTGATC TGCCCTCCTC AGTCTCCCAA
2341  AGTGTTGGGA TTACAGGCGT GAAACACTGA GCCTAGCCTG AACAACCATT TGATAAAGAG
2401  ATAATGGGTG TGACCCAAGG ATTTAATCAG CCATCTCAGC AGAAGCCAGG AAGAGAGATG
2461  GGATTATTCC AGCAGAGACA CTGCCAATTT AAACTAACGT AGGCAGAGAA AACAGAAAGG
2521  AACAAAGGAA GGTTGTCGAC TTTTTGAATT CTATAGAACA GGATCATAGA GCTACCTGGC
2581  TGTCAATGTG TACTATTCTT TAAGAAAAGG AAAGACTGAC CCACCAAAGG CAACTTACAA
2641  GATCACTAGG GCTGACTCTT TTTTGTTTTT TCTTGAGGCA GTCTCACTGT CACCCAGGCT
2701  GTAGGGCAAT GGTGTGATCT CAGCTCACTG CAATCTCCAC CTCCCAGGTT CAAGGGATTC
2761  TCTTGCCTTA GACTCCCAAG TAGCTGGGAT TACAGGCTCT AAATCTGTAC CCTCCCGAGT
2821  AGCGCTCCTG CCACCACTTG CCCAGCTAAT TTTTGTATTT TTAGTAGAGA TGGGGTTTCA
2881  CTATGTTGGC CAGGCTAGTT TGGAACTCCT GACCTCCAGT GATCCATTCT CATTGGCCTC
2941  CCAAAGTGCT GGGATTACAG GCAGGAGCCG CCAGGGCTGC CACTTTGATG TCAGACTCAG
3001  AGAGTACAGA TGGGATAGGG TGGGGGTGGG AACATGTAGT CAAGGCTGAC TCTACCTGTT
3061  TCAAAGATGC CCTGCAGAAC TGTGTGGGAG TCTCTCACAG ATGGCTGCCT GGGTGGGACC
3121  CCACCAAACT GAAAGACCGA GACTTCAGGC AGGGCAGATG GAGTAGGCCA ACTACAGAGC
3181  CAGAGGTGAC ACTGAGACAC CACTGGGCCT GGAAATCAGG GCATCAAGCC AAAGAGGGTT
```

Figure 9 (Page 1 of 74)

```
3241  TTTCTTAAGA CCTAACAGAA TTTGCCTTGC CAGGTTTTGG ACTTGATTAG GACACATTAC
3301  ACCTTCCTTC TTTCCTATTT CTCCATTTTC TAATGGGAAT GTCTATTATG CCTGTTTCAC
3361  CATTGTACCT TAGAAGCATG TAACATTTCT GGTTTCACAC GTTCAAAGCT GGAAAGGAAT
3421  TTTGTCTCTG GATGAATCAC ACATTGAGCC TCACCCGTAA CCTGATTTAG ATGATTTTTT
3481  AGATGACACT TTGAACTTTA GAATTGATGC TAGAATGAGT TAAGACTTTC AGGGGGCTGT
3541  TGGGATGGAA TAATTTTTTT TTTTTTTTTG AGACGGAGTC TAGCTCTGTC GCCCAGGCTG
3601  GAGTGCAGTG GCACCATCTT GGCTCACTGC AAGCTCTGCC TCCCGGGTTT ATGCCATTCT
3661  CATGTCTCAG CCTCCAGAGT AGCTGGGACT ACAGGCGCCC GCCACCACGC CTGGCTAATT
3721  TTTTTTTTAT TTTAGTAGAG ATGGGGTTTC ACCGTGTTAG CCAGAACGGT CTCGATCTCT
3781  TGACCTTCTG ATCCGCCTGC CTTGGCTTCC CAAAGTGCTG GGATTACAGG TGTGAGCCAC
3841  CATGCCCGGC TGGGATGGAA TAAATTTATC TTGTATGGGA GAAGGACATA CATTTTGGCA
3901  GGTCAAGGAC AGAATGTTAT GGACTAAACT GTGTCCCCCA AAATTCATTT ATTAAAACCC
3961  TAAACCCCAG TGTGACTGCA TTTGGACATA GAGCCTTTAG GGGGTACATA AAACTAAAGA
4021  TCACAGGATA GGGCCCTAAT CCCATTGGGG CTGGTGTCCT TACAGAAGAT GAGACACTTA
4081  GAGCTCTCTC TCCACGCAGG CACCAAGGAA ACACCATACA AACACACAGT GAGATGGCAG
4141  CCATCTGTTA GCCAGGAACA GATTCTCACC ATAAACTATG TTGGCACCTT GATCTTAAAC
4201  TTCCAGGCTC CAAAACTGTG AGAAAATGAA TTTCTGTTCC AAGCCTCTTA GATATGGAAA
4261  AAAAGATTCT GTTGTTTAAG CCATCCAGTC TCTGGTATTT TGTTATGGCA GCCTGAGTAG
4321  GCTAAGACAA TGAAGGATGT GGTAAAACTT TACGTCCCAA CCACATACCA AAGAGGCTGG
4381  AATTTAGCAT GCTTTCTTCT TTCAACTGTA GGCAATGTGC ACAAGTTCTA AATCCTAAGA
4441  CATGTTGGCT CCTTTACTCT GCCCAAACTA CAACTCAAAC AAACAACTGT AATATAATAA
4501  CATCCAATGA AGTTCTGACA TTTCTTCAAC ATGAGTACAG TAATTCAATG CCAGAGAATT
4561  CATTTTATTT TGAAATCTAC ATGCCATATT CCAATTTCTG TTGAAGATGC AATGGTTATA
4621  TTTATTCTTT TTAATATAGA TTTATCAGAC TGGGCGCGGT GGCTCATACC TGTAATCCTA
4681  GCATTTGAGA GGCTGAGGTG GGCATATCAC CTGAGGTCAG GAGTTTGAGA CCAGGCTGGC
4741  CAACATGGTG AAACCCTGTC TCTACTATAA ATATAAAAAT TAGCTGGGTG TGGTGGTGCA
4801  TGCCTGTAGT CCCAGTTACT AGGGAGGCTG AGGTAGAATT GCTTGAACCT GGGAGCAGGA
4861  GGTTGCAATG AGTGGAAATC GCACCAGTAC ACTCCAGCCT GGATGACAGA GCAAAATAAT
4921  AAATACATAA AATAGATTTA TCAGTTTATC AATAATATAG TTTTCTTTTC TAGGTGTAAA
4981  TATAGGTAAT GACTGTCCTT TAGTACATTT TCTCATGATG CTCCTCTTAC TTGGTTTGGT
5041  ACAATATTAA GTATTGAAAT AAAATAGAGA ATCCTGTCGC TACACATGAG CACTTATTCC
5101  ATTTGCTCAT CTCCAATATG CACGGGAAAT TCTCAAATTG CTAATAATCT TGTAACACAC
5161  ATGCATTATA TTCAACAGGA ATATATAAAT TTATAATTAT AATTTAGGAT CAACAGATGA
5221  CAAACCTTTA GAAGGTTTGT ATTTAACCTT AAAATATAAT TTTTTAAAAA TTGGTTATAA
5281  AATTTCTAAT ACTTTCTTTT TTGTGACCTC AAGGGGAAAA TATAATTCTT ATAAAAGTTC
5341  AAATGATTTA CAGAATACAA AAAGTGAATA GAGATGATGA ATGAATTAAA GGAAAGGATA
5401  TTGCTACATA GATTTGGAAA TTTAAAAAGG GAAATTACGA TTGTTGATTT TGTGTTAAAC
5461  TGATCTGCTT TGTTCAAGAT ACCTTATGTA CCAAAAAATG ATTTTATCTC AGCCTCATAT
5521  CTCAGTAAAT TCCTGAGACA AACTTTAGTC CCTGGTGCCC AGGTGCCTTT GGTAATTGGG
5581  AGACCTCTAG GTTTAGCATC CTCATCCACT CGCCCCAATT TAAATAGTCC TCCCCAGGGC
5641  CATTCAGGCA AGGGAGATGA AAACTTGCTC AAGAGTTGGA ATCCAATTGA AGCTACCGAA
5701  ATTCATTGCT CAATAGATAA TTTTCCCTGG AAGTAACTAG GGCTTTTGAA TATAATAGTG
5761  GGCATTTCAA AGTAGAAGGT AAAGTATTTT GGAGATGAGG AGACAGGACA GAGCTACGAG
5821  GAATGTCCTT TGCTCAGGGA CTAGGCTCTT AGCAGTACCT CTTAGGTAAG AACTGGTTAA
5881  CTGGCACCTT CTGTGTTTCT CTGAAGCTCC CTTTGCTTAG GGACTAGGCT CTTAGCAGTA
5941  CCTCTTAGGT AAGAACTGGT TAACTGACAC CTTCTATGTG TCTGAAGCTC CCAGAACAAA
6001  CTGCCAATGA AATTTGGATT TTTGGAATAT AGTTTCTTTT TTGTTGTTAC TTTTTGTTTT
6061  GTTGTTTTTT TTTGAGAGTC TCACTCTCAC TGCAACCTCC CCCTCCTATA TTCAAGTGAT
6121  TCTCTTGCCT CAGCCTCCCG AGTAGCTGGG ACTACAGGCG TGCACTAGCA TGCCCAGCTA
6181  ATTTTTGTAT TTTTTAGTAG AGATGGGGTT GGTTTTTTTT TGAGACAGAG TTTCACTTTG
6241  TCGCCCAGGC TGGAGTGCAG TGGCACGATC TTGGCTCACT ACAACCTCCA CCTCCCGGGG
6301  TTCAAGTGAT TCTTCTGCCT CAGTCTCCTG AGTAGCTGGG ACTACAGGCG CCTACAGGTG
6361  AACACCGCCA CACCTGACTA ATTTGTGTAG TTTTATTAGA GATGGGGTTT CGCCATGTTG
6421  GCCAGGCTGG TCTCAAACTC CTGACCTCAG GTGATCTACC CACCTCAGCC TCCCCAAGTG
```

Figure 9 (Page 2 of 74)

```
6481  CTGGGATTAC AGATGTGAGA CACCAGATCA GCCTCAGAAG ACATTTTCTA TTGGAAAGAG
6541  AAAACACTAT TAGCAACCTA TTAGTCTAAT ATTTAATACT TAATGTCTTC CTTAGTAATA
6601  AACCAACTCT CTACAACAAA GTGCTTCCTG GCTGCCTAGT CATTGATTCA TTCAGTTCAA
6661  CATTTTCTCA ATGCCCAACA GCCAAGTGTC TCCTGTATGC CAAGTTCTAT GCTGATTATC
6721  AGTATTTGAA TAAGAGGGGG TCTACATCTT AAGTACTGCT TAAGATGAAA GCCTCTAGGT
6781  TAACAAACTT AACACAATGT ATCATTCACT ACTAAATAGA CCGAATACAA AATCTTGTTA
6841  TTGGAGCCCA GAGAGAAGAA TTGAAATTCA AGTTTTCTCT CTCTCCTTTT CTCACTCACC
6901  ACAATAAGTC AGTTGCACCA AGTCTTGTAG CTCTTTACTG AGCCATGTTT TCACGTGTCC
6961  CTTTGTTTTA TTTGCCACAC CCTAAATAAA AATTGTACTG GCTTTTTTTC CCTGGGTTTA
7021  CAGTATTAAT ACATTGTCAA GATTTACCTC TTCGTGTAGA TTCCCTGGGG AAAATTACCT
7081  TTCCTCCTTC CCTTAAATTC TTCAGAGGTT AGAAAGCCAT TAGTAACATT CTGGTATGTG
7141  GACAAAGTTT ACCCATTATG TATGGATGTT TTACTCTTTC CATTTTTCTG ACAATAATCT
7201  CTTAAGGAGG TGTGGTTATA GAATAGTCAG CTGTTATAAG TACTGTTTTC CTGGCCTTAC
7261  AACTTAAATT CTTTAAGCTG TTTCTTAGTT TGCTCATCTC AAAATTCGGA ATAAGGATAA
7321  AACCTATCTC TTAGATTGTT GGATTAAATG AATTAACATA CTGGAAGCTC ATGAAATGTG
7381  CCTGGCACAC AGTAGTGCCT AATAAACCAT CTCTCTTATT CAGCCTGTTT TCTGATTTCA
7441  GAATCTACAC TTGCTGAGCC AGGTTCTTTT CATTTCAAGG TGAGCAAAAG CATACAAGGA
7501  AGAGATGGAG GTAGGAAGAG ATTAAGCCCT AGGCCAAGGG AGCTGGAATC AAAGGCAATT
7561  TGGTCAGTGA ATAAAAAGGA TTCCAAGGCC CATAAGGCAA TTCTAACCTT AGGATCGAAA
7621  TTCTCGGACA TACAGGAAAT GCTGGGGGGG GGAAAATCCG GTCTTCTCAG CCCAAGAGCC
7681  ATGTGAAACC AGACCTTCAA ATCTGATGAT TCTCAGCCCA GCTGCCCATT AGAATCGTTG
7741  TAATTTAAAA ATACCCTCGG AAAATTCTAA TATGTGGCTA TCAAAGGTGA TCATTTGCTT
7801  TTATGCCACT TTGTTTTCAC CCAAATGGGA CATCCAACCC TTTTCCTTTG AGAGTAGTTG
7861  TAGGGAAAGG AGGGGGTGGA GGGAGGGAAG AGCGGAAAAG GCTGGATCCG CCCCGAGCCG
7921  GTGTCAGTAT CTGGGAAGTG GGAGGCGCGT CAGCAGTAAA CAGCTTCTGC TAGGATTATT
7981  ATCTCCTGCC ACACACTCGG ATTTGAAGGC TCCAAACGAA ACAATGCAAA ACGCTTCAGT
8041  GGAGTTCCAG AAGCGTTAGA CTAAACGACT GGGTCTGTTT GGCCAGTCTG AGCAGCTGGG
8101  CGCAGATGCA TAGGCAAGAC TTAGCCCGCC TAGACTTTTC TGCCCACTTA ATTCCGATCA
8161  AAGCAGAAAC CGGCCGGGCG CGGTGGCTCA CGCCTGTAAT CCCAGCACTT TGGTAGGCAG
8221  AGGCTGGCGG ATCACCTGAG GTCAGGAGTT CGAGACCAGC CCGGCTAACC TGGTGAAACT
8281  CCGTTTCTAC TGGTGGCGGG CGCTTGTAAT CCCATCTACT AGGGAGGCTG AGGCCGGAGA
8341  GTCGTCTGAA CCCGGGAGGC GGAGTTTGTA TGCAGTGAGC CGAGATCGCG CCACTGCATT
8401  CCAGCTTGGG CAACAGGAGC AAAACTCCGT TTCAAAAAAG CAAGCAAACA AACAAAAAAA
8461  TGCAGAAACC GAGATCCGGA AGAAAACCTC GGCGAGATTC ACAGAATCCA GGAAAATAGG
8521  TCTCTAGAAA TTTGTCCATG GTCCCAGATC TCCATTTCTT GTGGGTGGGG CAGCTGTTAC
8581  CAGATCCCTA GAAGCAAAGG TTTTTTTGGG GGACCGTGTC TCACTGTTGC CCAGGCTGGA
8641  GGGCAGTGGC ACGATCTCGG CTTACTACAA CCTCCGCCTC CCAGGCTCAA GCGACTCTCC
8701  TGCGTCAGCT TCAAGAGTAG CTGGGAGTAC AAGGTATGTG CCACCACGCC CAACTTATTT
8761  TTTTATTTAT TATTTTTATT TAGTAGAGAG GTGTTTCACC ATGTTGGCCA GGTTAGTGTC
8821  GAAGTCGTGA CCTCAGGTGA TCAGCCCCCT CGGCCTCCCA AAGTGGTAGG ATTAGAGGGG
8881  TGAGCAGAAA GCAAAGGTTT TTGAGTGGCC ACAGGCCCCA CTCTATTTCC TTTTCTGCCT
8941  GTAATGGCAA CCTAGACGCT TGAGCTTCTT AAAATACAAG AGTAAGTTGC ATGTCAGGCA
9001  CCGTTCTACA TTAGGGACAT TAGTCTGTTT TACAGACACC TTTCAACTCC CTGGTTAACT
9061  TTTAGGTAAT ATACTCTGCA CTTTAGCAGG AATGGAACCT ATAACTCTCA CAGAATTAGG
9121  AAAGTGAGGC TGCCTACAGC CTAAATTGAG AAAAAAATAG ACGGGGGACT AGTCGGAGGA
9181  CCAAACAAGG TTACCAACAC GTTAGAGTTT TGCCTTCAAT TTACATTTTT AAAGTAATCA
9241  CAACGAAGTG TTTAGATCAC GAGGCATCCC TGCATGTAAA CTGTTAGGCA CTAACTATGG
9301  TCGATCTTAC AAAGCATTAA CTAGAATATT TCTTTAGAGT ATGATAGTAC GTAACTGACC
9361  TACTATTACA TACAAACAGA CCAACCTTTA GTAACAGCGC TCCCCAAAAA CCGAAAAGCA
9421  GTAATACGCT TTGCTCAAGG TTGGCATAAA ATTAACTTAC CTTAGTGCCT TTTTTCCTTC
9481  TACCTACAAG CAGTGAGGTT AGCTCTTCCT TTGAAACGGT AGGGGGGCTC TGAAAAGAGC
9541  CTTTGGGTTT GATAGCGTTT CCGGGAGCTC AGATACCTGT CAAATCACTT GCCCTTGGCC
9601  TTGTGGTGAC TCTCGGTCTT CTTAGGCAGA AGCACGGCCT GGATGTTAGG AAGGACGCCG
9661  CCCTGAGCAA TGGTCACCCG GCCTAGCAGT TTGTTGAGCT CCTCGTCGTT GCGGATGGCC
```

Figure 9 (Page 3 of 74)

```
 9721  AGCTGCAAGT GGCGCGGGAT GATGCGAGTC TTCTTGTTGT CGCGAGCCGC GTTGCCGGCC
 9781  AGCTCCAGGA TCTCGGCGGT CAGATACTCT AACACCGCCG CCAGGTACAC CGGCGCGCCT
 9841  GCCCCAACCC GCTCTGCGTA GTTGCCTTTA CGGAGCAGGC GGTGCACTCG GCCCACCGGG
 9901  AACTGGAGAC CAGCGCGAGA AGAGCGGGAT TTCGCTTTGG CGCGAGCTTT GCCTCCTTGC
 9961  TTACCACGTC CAGACATTGC AATCAGACAA AAATCACCAA AACCAGCAGC CTAAGCTCAC
10021  GAGAAAACAA ACAAAATCAA GAAATATGTA AAACATGGCC GCTTTTATAG GTAGTTCCTG
10081  GGGAGTAAAT CCGACTTTTT GATTGGTCGG TAGCAAATGC TAGTCAGATA GCCAATAGAA
10141  AAGCTGTACT TTCATACCTC ATTTGCATAG CTCTGCCCAC GGATGACAAC TGTGTAGTTT
10201  GTCTTCCAAT TAACTAAGAG GTACTCTCCA TCCCTCATTA GCATAAAAGC CCTATAAGTA
10261  GCAGAAATCC GCTCTTTACT TTCGACACAT TTCTGGTGTT TTAAGATGCC TGAGCCAGCC
10321  AAGTCTGCTC CCGCCCCGAA GAAGGGCTCC AAGAAGGCAG TGACCAAAGC GCAGAAGAAA
10381  GATGGCAAGA AGCGCAAGCG CAGCCGCAAG GAGAGTTACT CTGTGTACGT GTACAAGGTG
10441  CTGAAACAGG TCCATCCCGA CACTGGCATC TCTTCCAAGG CCATGGGCAT CATGAATTCT
10501  TTCGTTAACG ACATATTTGA GCGCATCGCG GGCGAGGCTT CCCGCCTGGC GCATTACAAC
10561  AAGCGCTCGA CCATCACCTC CAGGGAGATC CAGACGGCCG TGCGCCTGCT GCTTCCCGGA
10621  GAGCTGGCCA AGCACGCCGT GTCGGAGGGC ACCAAGGCCG TCACCAAGTA CACCAGCTCC
10681  AAGTAAACAT TCCAAGTAAG CGTCTTAACA CCTAACCCCA AAGGCTCTTT TAAGAGCCAC
10741  CCAGATACCC ACTAAAAGAG CTGTGGCCAG ACGCCAAATT TTATTTGGCG GCGGAGGGGT
10801  ATTAGAATGT AGGAACTGGA GAGGGGTGGG GACAAGTGTT GCAGCTTAGA GAGGGACAAA
10861  GGGTCCTGAA CCCGAAAGAA GCCAGCCATT AAAAATGGGT TTGGGGTCAA TTCGTTGTGC
10921  TTAAATTTAA AATGGGGACA AGCGGCCATT TTGCTAACTC GGCGTTCCCG GAAGAAACCG
10981  CAGGCTCGCT TAGGTTTCAG ACCCAGCTGT CTGTCCCTGT CTACGTCGCC AGGATCAACG
11041  GTTGCCGTAA TGTCATAATT TCGCCACCAG CTTCTAGCCA ATAGGCTGTC CTGTCATTTT
11101  AAATATTAAC CAATCGAGGG AAAGCTGTTT TGAGACTCTG ATTTACATAG CGGACCGGAG
11161  TGGGAACCTG GGCAGTAACT GCCTAAGGAA GGACTCCCCC TCTGTTTTCG TGGCGCACAC
11221  CTTCGTAGTA TACTGAAGGG TGTGTCTCCT GGGTTTCCAA CTGCCCCGGT AATAGTCTTT
11281  TAACCTAATA TGCGTCAGTT TTGATAACAA CACTAAGGCA GTACAGAACT AAAGATGTAA
11341  GCACTGCGCC AGATGTTGCT TCATACATCT TATTCTATTC AACTGGTTTA TTCAAGATTC
11401  AAATCAAATC AAATTTTGCT TGAATCCCAG TGCTCAGTCA GCCATAAATG GTGTGTTGCC
11461  TGATTGAAAC TTAAAATCTC CGTAGGGGGC TTGTAACATG CAGAAAAGTT TGAAAGTTGC
11521  TTTAGGAGAA GCCAACTCTT AACTGCTGGG TAAATTGACA AGCCTTCGAA CACTGAACTG
11581  AAGGCCAGTA AGGACTAGGC GCTGGGTGGG GGAGAATGAA GAGGAGACGT CATTAAACTT
11641  AGCACATACA CTGTGTCTCC TAGAGGACTC TCCCTTCCTA GACAACTGCA GGCCGCTTTG
11701  TGGCCTGGGA AATTCCACAT TCCCTTAAGT ATTTTACTCA TGGTCTTTTC CAGGTAAAGA
11761  TTTTAAGATG AAGGGTTAGA CGTAGTCTAC CTATCTTTTT ATTCAAGTCT AGAACACGTT
11821  TTTAGCACCT AGAAGTTTGC TTTCTCCATT AAAAACCGGG AATATACAAT AAATAAAATT
11881  AGTGTTAAAG CAGATTTTTA CAAACTTAAA TACCATGTAA TTTAGGTTAC AGTTACTTAA
11941  CATAAGGACT GTGTGATCTT AAATCTGCAA TTTCTTTCAC ACCTGGGAAA TAAACTAAGG
12001  CCTGTCTTTG GTGCCAGACA AGGCCTTATA CTTGAACACT GCTGTGCAAT CACAGGCTGC
12061  CTTGCCTAGA TAACTTATCT GAGAAATTCT GATGAGAAAT GAAATTTCCA GAGTCCCTCA
12121  CAAGTAAATT TTTTTTTCTT TTTTTTTTTT TTTGAGACGA AGTTTCTCTC TTGTTTCCCA
12181  GGCTGGAGTG CAATGGCGCG ATCTTGGCTC ACAGCAACCT CCGCCTCCCG GGTTCAAGCC
12241  ATTCTCCTGC CTCAGCCTCC GGAGTAGCTG GGATTACAGG CATGCGCCAC GACACCCTGG
12301  CTAATTTTGT ATTTTTAGTA GAGACGAGGT TTCTCCATGT CGGTCAGGCT GGTCTCGAAC
12361  TCCGGACATC AGGTGATCTG CCCGCCTTGG CCTCCCAAAG TCCTGGATTA CAGGCTTGAG
12421  CCACCGCGCC GGGCCTAAAT GGTTTTTTTT TTTTCTATGC CTCTAATGGA CCTGGTCACT
12481  TATTCCCATT CAGACTGACC GCTCTCCTAC CTGCCAACTA ACTAATCAGT GTAACCAAAA
12541  TCTGCAAACA AAATTCAGTA TTCTTTCCCC GCCTTTTCCC CTTTCTCTTA CATAGATTAT
12601  GTTTTTGCCT GTGTTAGATG AAATAATTCT ATTGCTTGTT CTCTCTTCTG TACAAGTACC
12661  CAGTAAGCAA ATTATTAACT TCTTGGTCAT TTATTTCTGA ATTTTCCACC AAGACAGTGT
12721  TTATGTGAGT CATACAATAA GAACCAACAG AAATGTGTGT CTTGGAAACA GGTTGTCTAT
12781  CCCTGGACCC TTTGAGTTTT CTGTTCACTT TCCTTTGGCT TTTGCATGCT AAAAGTTTAT
12841  CGTCCGCGTT TGTTTGTTTT GGTTATTCTA ATTGGACTTG GCTGATTGGT TGCATATTGG
12901  TGGCAGTAGT AGAATTTGAA TTCTGGTTTT CTGGTCACAT CATTAAGTGA TTAGTCAGTG
```

Figure 9 (Page 4 of 74)

```
12961   GAGAGGACAG GAAATCTGGT TTATTTATTA ACCTTTTTTT GGGGTGTTTT TGTTTGAAGA
13021   TGTTGATATT CTCTGTGAGG ACACAGGGTT AGAGTTGGTG TTTTTCTTTC TGACTTTACA
13081   TGGGATTTGA TGTTTTGTGC TTGTATGCCT CTTTCCACCT TCCAAAACTT GTCTTTTTTG
13141   AGTCCAAATA GTTGTCGATA TCTGCAAAAC CAGTATTCCT GTGTTAAGAT GATATGAATA
13201   TAAAATGGCT GCCCTGTTAT AACTTTTGAC TTTAAGAAAG TGTTAGGACT AACAGGAGAC
13261   AAAAAGGAAA TCAAGGAAAC CAAATGTCTG GTCTCAATAA CTGCTATGGC AGAGGCTCTA
13321   CAGCTTATTA TTAATTTTAG TAATTTCACA TTATTGCCCC TTCACGTTCT TTAAGTAAGG
13381   TTAGAGGACA GAAGAAACAT AATGTTGTTA CAAATTGGAC TATTGAGTCA GGAAAAAAAA
13441   AGAGTGCTTT CAATATCTGA ATAAAACAAA GATTTAATAT TTTCTAAACC TTAACGAGTT
13501   TATTGTAAGG GATGTGATGC TGGAAACTAG GAAACTAGAA TTTTCTTCTA AACTGAGAAT
13561   CAGAATTATT CATATTCTCA GCAGTGGTGC CACCTGAGGG ACTTCTGATC TTAATTACAT
13621   ACTTTTATTT CTTTAACTGA TCAACATGCT AAATAGATAA CCTATGGCTC TGTTTTTACC
13681   CACTTTAAAT TCTGTTCTAT TAGCACGGTT AGCTTTCCTA ATTGGCAATA AGATTGAGAC
13741   TATCTTTTTT TTTTTTTTGA GACAGAATTT TGCTCTGTGG CCCAGGCTGG GGTGCAGTGG
13801   CACAATCTCG GCTCACTGCA ACCTCTGCCT CCAGGGTTCT AGCAATTTTC CTGCCTCAGC
13861   CTCCCCAGTA GCTGGGATTA CAGGTGCACC ACCACGCCTG GCTAATTTGT GCATTTTTAG
13921   TAGAGATGGG GTTTCGCCAT GTTGGCCAAA CTGGTCTCGA ACTCAGGTGA TCCACCTCGG
13981   CCTCCCAAAG TGATGAGATT ACAGGCGTGA GCCACCGTGC CCAGAAAAGA CTATCTTATT
14041   TTATGAATTT AAATAATTGT GAAATTATCC ACTTAAGGGA ATTAATAAAT TATAATGTAA
14101   TCTTAAATTT TAGTTGGCTT ACATAAAGAC TTAAAATACA TCAATTTAAA TAAAAACTCA
14161   TTTGTCTAAA AAAAAATCAA AAATTTTCCT TGTGCTTTAA ATGTGCTACC TCTTTAAGTT
14221   CTAATTAAGA GAAAAAAAGT TTAACTGTGA GTTTCATTAG TGGTCTTAGT TAACAGCTTA
14281   AAGTATTTTG TAAAAAAAAT ACTTCACAAT TTTTAAATAA CTTAAAAATA TTAATACCTC
14341   TTTTATTAGG TTTTTTTAAT AAGGAAAATA TATAATACAT CTAATCAAGA TTATTTTTTG
14401   GACAAATTGG CTTAATAATT TCATTTTAAA AATGGCTTCT TTATTCTTAT ACTGTAAAAA
14461   TAATATTAGC AGAATATTAT AGTATACACA AGTTTAGGGT TCATATTCTA AAAAACAAAA
14521   ACAAAAGCTA ATTTAACTTG CATTTACTAA ATTTCTTCCA CTAGTTGTAC TGGTTACATG
14581   AGTTAACATC ACTTTATTTA TTATTCTAAA ATTGTAAATT ATTCATTGAA CCAAATTAAA
14641   TGATAATAGA TAATGTCATT TTTAAAAATG GAATTAAATT TTATGTTACT AATTATAAGG
14701   ATTCAATGTG TGAGCTTAAG TACTGAGTTC ACAGTGTATG ATAACTTTAA GAATTTAGGT
14761   GAATATTATT AAATTGAGTA AATTAATTCT CAATCTTTGG ATACCTGGAC AATTTCTAAA
14821   TTGGAGGGTA CAAAATACAA ATCACAAGAA ACAGTGTAGT TTTATGCAAA TAACATTTTT
14881   ACACAGTTTA GAATAACCAT TGATAAACAG ATAAGAGAAC ATATGATTGC CTTAGAATAG
14941   ATACTGTTGC TTTCGCCACT TTAGATTTGT AAATCATGTA CTGTATACGT GTGGGCGTAG
15001   AGGACCATGC AGGTTTTGGA TGACTGCCTC TGTTTTCGTC ATGCCTATGC GGGAACACAA
15061   TTGCCTGCTT TGTTTAAGGG CTATGGTTAA TCCAAACAGC TCTGACTCTA TCAAGTACTA
15121   TAGCTACAGA GAAACACAAG TAAGCATTCG AGATAATGAC TACCTTGAGC CTTTACTTAT
15181   TTAAAAAGTT GTTACTGTTT GTTAATGTGG TACATTCAAT TTACTATGGA TTGTCACTCT
15241   AAAATAAGAC TTCAATCTTT TTCTTATTTT TATATAGCCA TGATTTATAT TCATATCTTA
15301   ATGTAATAAC CAATCTTCTC TGACAACATT ATAACAATGC TGGAACCTCC ATTTTCAGTA
15361   CTTCAAACAA CAAATACTGC TTTTATACTT CAGAGCAGAT GGATATGTGC TTCCCAGTGT
15421   AAACACATTT GGAATCTCAC TGAGAAATAC ACTATCACTA AAAATACAGT TCTGAGATTC
15481   ATTAAAAGAC CTCCAGAATT CTGGAAGTAG GAAGTTTCCT CTTCAAAGTC TACAGAGGAA
15541   GACGAGGTCT GAAATAGACA GCTTCTTCCT TCTTTTACCT GTGGTATTAT TCTGTTTTGT
15601   CCTTTTCTCC ATTATCTGTC TTTCCAGTGA TGAAATTTTG ATCTGGCCCT CCCAAGTATT
15661   AAAAAACAAG CAAATAAACA AATCTCAGTT ATATTTTACT AAGATATTGG CATGCTAACT
15721   TTTTGCAGGT TTGTAACAAG GACCTTTATA ACTTGACTAA AAGTTCCTAA ATAAGAATAT
15781   TTACTAGAAA ATTTATTTCT GCCTGTGGCC CACATTTGAG TCAAAATAAT CAATTAGGAA
15841   AAATGAACTT GTTTAACTAA AGTTGGCCAA ACTGATCTTT GAGACCTATT CATCTAAGAC
15901   AAGCCAATTA AATTCTTGGA GACAATTTGT ACTTTAAGGA ATTCTTATAA TATTTGTAAT
15961   TACCCTCATA ACTTTTTTTT TGCCCTACTT CTGTGCTTCT CTAATATGCA GATTATTAAA
16021   TGTTGTTACA AAGCCATTGT CAAAAAAACA AAAAACAAAA AACTAAACAA ACTCACATGG
16081   TTAGACTTGC TCCTTTATGA GATATTTTTA CCAAAAATGG AGGAGTTGAA AAACTCTGGT
16141   GCCAGAAATC GTGAAGACAT GGCCTACCTA ACTTGGAAAT GTTGGTTGTC AGTGGAAAAT
```

Figure 9 (Page 5 of 74)

```
16201  ACTACACAGA GATAGCCATA GTGCTGCACA GCCAATCTTA AGTGTTTCTA GAGAATCACT
16261  AATTGTTTCT AGAGAATCAC TAATTGTTTT CTTTTAACAT TCTTGGTTTA TACAAGAAGA
16321  GAGTATCCAT ACTAAACTCT TTTCTACTGA AAATAATGTG CAAACATAAC ATCCTATTCC
16381  TAGACAGTTT GTAGTTTTTT TCTCCCATTT CTATTTTATA AATCATCTTT TTAAAATACT
16441  TTGTTGAGTG AAATCAGTCC ATTGCTTGAT ATACCTTGAG CACAAGTAAA TAGTATGCCA
16501  AAAATTAAAT GTCTTTCAGT CACAGTTTGA CAAACTCAAC TACCCTGAGC CTATAGAGTG
16561  GTAATAATTG CCCTACTCAT AAAGATGGGG TGAAGATTAA ATGAAATAGC ACCTATAGAA
16621  CACTAGTTCC AGACGTGGTA TCATGCTAGT AAAATGGCTG CACAGCACTG CTCAATGATG
16681  ACAAAAAGTG AAGCTTCTGG AGACAGACTC CAAGTTTGAC TCCCAGATCA CCACATATAA
16741  GATGTGGGAC TCTGAGGCAG GTCATTTAAT CTCTCTGTGC ATTAGTATCC TTCTCTATAC
16801  CTTTACAGTG ATGGTAATAG CACCTACCTT CTAGAAGTAT GTGAAGATTA AAGATCCTTA
16861  ATGCATATAA ACCACTGTGT TTACTGCTGT TTGACAAATT TTATTTATAA CCATCTTTAC
16921  GCTCCTAAAA GGACTTGAAG CAGCTTATGA CTGAAGACTT TGGTAGGAGT TGGCCTTCTA
16981  TAAATTATAA GAATTTCATA AATTATTTGA TATGAAAATG CCAGTTGATC ATAGTATGTT
17041  TACCGGGGTC CAACAGGTTG AGAAAAAATA CACTTTTTTT CCCTGAACAT ATGAAATTAG
17101  CTCTCTAGGC ATATTCCTAA GGACTTAAAG AATGATAACT ATCATTTCTC TTAAATCTTC
17161  CAGATTTGGA AGGATATATA TATTCAGCAC ATTGACAGAC AATCCCAGTA GTCCTAAATT
17221  AAAAGACATT AAAAATTAGT GAAACTTTTC CTACCTTTAG CCTGTGTAAT CCTGGATGAC
17281  CAAGCATAAA ATTAAATTGA GTAGAGTATA CCACTGTAAC ATTTCCTGAA AGGTATTCTA
17341  GGCTCTGAGT AATTTCTTTG GGGTCTGAAG ATCAGTTTGA CATATCCTCA AGTATCATGA
17401  GTTCATTATA ATTAAGAAAA AGGGAGTAAA TCTGGAGAAT GAGCCACTTT CTTACTACTC
17461  CTTGACCTCA GTTCTTTTTT TCAGAGACAG GGTCTCACTT TGTTGCCCAG GCTGCCAGGC
17521  TGGAGTGTAG TGGCGCAATC GCATCTCATT GTAACCTCCA CCTTCTGGGC TGAAGCCATC
17581  CTCCTGCCTC AGCATCCTGA GTATCTGGAA CCACAGCAGG TGCACACCAC CATGCCAAGC
17641  TAATTTTTTA AAAAGTTTTT TGTAGAGATG GGGTCTTACT ATGTTGCCCA GGCTGGTCTC
17701  AAACTCCTGG GCTTAAGTGA TCCTCCTGCC TCAGCCTCCC AAATTGTTGG GATTACTAGT
17761  GTGAGTCACT GTACCCCGCC CCACTTCAGT TCTGAGGAGG AAAAAATATG TAATAATAAT
17821  GGGACTTTGG TTTGCTGATT TAAAGATTCA TGTAACCTTA TCATCCAATG CGCAATTTGT
17881  AGAATAATTA ATAGAGACAT CTGGTCTCAT GTTTCTACAG TTGCTCATGC CTTGATAGTA
17941  GATCTCCTTG CTGCTGGCTC AGAAGGGTAA AAGAGCAGAA ATGATGGGGC TTCTCTCATT
18001  CTATGAGGAA ATAGACCTAT GTAGAGGAGG CTACCTGTGG TAAAACCTTA TCCTCATCAC
18061  TTAAAATTCT AGGCTTATTC TCTGACCATA TCAAGTTTTC AAATGGTAAA AGAATTGGAT
18121  TCAAGAGAAA TATGAATAAA CTTTTGTTTT CACTTTTCTC CCTCCTCTCC CCCCATTCTC
18181  CCTTCCTTTA TTTTCTTGTC CTTAGTTTTC TTTTCACTTT TTTGTCTACT ATTATTTGCC
18241  CAAACTCAAC TGTAGGCTAG AACAAAAAAA AATTGAAAAT TAAAATGTGC CCCTTTTGTT
18301  GTTAGACTTG CTTAAACAAT TGGGGTAATG AACCTTGGAC ACTAGATTTT AAAACACACA
18361  CATTTGAGCT TCAGTGCACT GAAATAAATA TATTTTTAAC AATTAAAAAA TAAAATTGCA
18421  TGTTTAAAAA ATCTGCAGAG AACAATACAC GTTGTGAGAT CTTGAATGGA AGGAAAACTG
18481  CTAGCCTCAA GAGTGGATCA AAGATGCTCA GCAGGCAACA GAGTAAGAGC ATGTTGGAGG
18541  GTTTAGAGAG TGTGCTCAGG GTTCTAGGCT CTAAAAATCA GACAGTCCCC ACGGCCTGGC
18601  CTTCGTCGCT GTATCTTCTT TATGAAAAAC ACTAAGTCTT TTTCCTCACT GGATAAATTT
18661  TTATCCTTCA AGTTTAGATC AAATGGAACT TTAGGACACT GACTAGGTTA CATTCATCTT
18721  TTAAGAGCGT ACAGACATTC AAGGGCTAGA GGATGTGGGT TTACTGCACA GGCTCATTAT
18781  CCAACAGCTG TGCTACCTGG GAAACTTAAC CTCTCTGTGC CTTAATTTCC TCATCTATAA
18841  CGCAGGGAGA ATGACAGTAG GTATCTCATA AGGTTGTTGG AACAACTAAA TGCATTGGTA
18901  TCTATTGTGT AAAGTGCTTA AAACACTGCC TGGCACAGAG CAAACATCCA GTGAACTTTA
18961  GCCATCATCA TTATCATTGT TCTCAGAGTC AAATACAATA TCTCATATCT GATAAATTAC
19021  AGAAGTGAAT CAATCACTCT CTCTCTTTTC TCCAGGGGGA GACAACAGCT TTTAGACATA
19081  TCTTTTCCAA CAGTCGTCAC TGCTGGACAC TGTTTCATCT TGCAAATAAA CCAATGAAAA
19141  TGAGTGATCC TAGAAGAAGA TAAATGGAGG TATTTTGAAC AATCAAAGAA GGACAAATGA
19201  ACACCTGGCT GAGAAAAATT AGCTCTTTTT TCTATGCATA AAACTATTAA AATATTCTTC
19261  ATAGAAATTT ATGACACAGG AAACATAAAG ACAAAATTAA AATAACTCCT AGTATCTCCT
19321  ATTCTTTTTA TATGTATATT ATATATACTC ATATTCATAT ATACATATAT CTCACATCAT
19381  GTATCATATA TAAAATAAAT TTAGGTGTCA TGATATATAT TTAGATAAAT ATACTTAGAA
```

Figure 9 (Page 6 of 74)

```
19441   ACTTTTTTAT GGATGTATAA TTTATGGATA TATTGATAAT TATGTATTTG TTATTGACTA
19501   CTTCAATTGA TTCCCATTTT TATGCATTAT ATTATAGATT ATATAGCTCA CACATCTTTG
19561   TACATAAATC TTTGTTCAAA TATTATTTCC TAAGGATAGA CTTCATGAAG TGGAAATACT
19621   AAATCAAAAG TGAAAAACAT TTTCTAAGGT TCTTAACATA TACATTGCCA AATTGCTATT
19681   CAGGATCATA CCAATTTATA ATCCCAAAAT AATATGAAAA TTCCTGTTTT ATAGCACTCA
19741   TATTTACAAT AAATTTTAAA AATCACTGTT AACCTAATAG TCCTTCAAAA GAAAAAAAAA
19801   TTGAAATTAC ATTATTTTAA TGACTCTATT AGTGAGGGTC ATTCTTCCCA TGTTTCTTGT
19861   TAGCCATGAC CCTATAAGAA ATAAACTGCA CTGCAAAATG ATAAACATGA TATCAATCAT
19921   TACATGGGAA GGCACTATAT AAAGAATAAT ACCTTAGGTT AAGGCCACAT AAATATTTAT
19981   CAGGTGCCTT TTCTGCGGAG GACTCTGAAG GGATACTAAA CTGCATTTAG CTGCATGCAA
20041   CTGAAATTAC TTTTACCTAC ATTGTCTCTT ATAAACATTA TAACTACTCT TTGAGAAAGT
20101   GTTTACTATG GACTGAATTG TCTCCCCATC CCCCCAAATT CATATATTGA AGCCATAAAC
20161   CCCAATATGA CTCTATTCCT AGACAGGACT TATAAGAGGT AATTAAGGTT AAATGAGGTC
20221   ATTAGGATGG GTTCCTAACT GGATAGGATT GGTGGCCTTA TAAGAAGAGG AAGATTCTGC
20281   ACTTGGTCTT CCAAATTAAA TAATTTATTT AAAAGAAAAA AAAAAAAAGA GGAAGAGAGG
20341   GAGCTCTGCA CATATACTGA GGAAAGGCTA TGTGAGCTCT CACAGTGAGA AGGTAGCACT
20401   CTACAAGCCA GCAAGAGAGC CCTCACCAGA ATCCAGCCAT GCTATACCCT GCTCTGAGAC
20461   TTCCAGCCTC CAGAACTGTG ATAAAATTTT GTTGTTTAAA CCACACAATC TATGGTATTT
20521   TTTTATGGCA GCCCAAGCCA ACAAAGACAG CATCATTGCT GTCACTTACA GACAAGAAAA
20581   CTAAGACTAG GAGAGAGAAA AGTTAAACTT GTCCAAGGTC ACAAAAGCCA GAAACAAGTG
20641   AGGTGAGAAG TTGACCTTGT TCTCCTCAAT CCAAGGCCAG GACTCCTCCA CTCCACATGT
20701   AGATAGCCAC CTCACAGTCA ACAGCCAAAT GTCCACACCC CAGAGTCAGC ATTAGACCAA
20761   GATGTCTTAC CAGGAGACAA ATGCCTCATC TTGAATAAAT ATGTTCTAAC AACTTACCCA
20821   TGTAAAACAT TGAATCTCAT GAGAAACAAA AATGCAAAGT ATGTAGAAAA CTATGTTTAC
20881   CACTTAACTG ACAGTGATAA AAAGCTTAAT GATATCCTTA TAGTCTTGGA GGGGTTTGTA
20941   TATGTGGTGA AACAGGTGCT CACGCACTGC TGATAGACTG TAAATTGGTC CTAGAGAGAA
21001   AAATAAATAA ACTGGAAGGA GTTATGCTGT ATGTTTACTT TTTTTATGGA AACATATGAT
21061   ATACCTGGAA ATTCGATTGG CCATGCATCT ATTTCTTCAA TGGGTATGCA CAGTTGAGCT
21121   GTTCCCATGC ACCAGGCACT GTAATGGGAC AACTGCACAT GACAGTCAAA AATCTCAGTC
21181   TCATGAAGTC GACATGCTCA TGGAGAGGTG CTACCCACTA AACTAATATT TGTATATCAA
21241   TTATGGATAC ATTGGGCCAC ATTTACAGAA ATTCACTTAC AGTGGGTTAC CAGAAGGGAT
21301   TTTTTTTCTT GATTGGCAAG AAGGCTAGGC TGTTTTGTTG GGGGCTGGCA GGAGCTGTCT
21361   AGGCTGCCCA AGTATGCAGG TCTCTTCTAT CATCCTGTGT TAACCATCTT CCATGTATCT
21421   TTCAACCTCA TGGTCATCTG CAGCATGTCT AGGGGTCATA TCTATGTTCC ATGCAGGAAA
21481   AAAGGGTAAA GGGAAAGGGA AGTAGGCATG TACCATTTTA ATGCACACCT TGGTTTTCAG
21541   AAAATTTAAG AAGAAAGACT TTCTGCTTTT CTCTGACTAT TCTGTATTCT GGATTACAAC
21601   GCAACAGAAA CGTCACCTTA AATTCTAATG TTTTTCTCTC CTTGCTTTCA AAAACTGACT
21661   CATTAACCTC CACGTGGCTT GGAAAAATTA TTTCAGTCAT CCAGTAATGA GCTGTTCATA
21721   GAAATGTTTT GGACATCAAG TCTGTGTTGT TAGCATTATA CATGTTAAGC ATTGAATAAA
21781   AAACAACATG ATGTGGGTAC ATTTCTTTAC TTACATATAA GTACTTATAT ACTTATAGCT
21841   GAAAAGAGAG GTTGAAATGT CAGGTGGAAC AGAAATAAGA TTACCTAGAT GTTTCTCCTA
21901   TGGGTGATTT TCAGCTATGC TGATCTTTCT TCTGGGTCAG GTACTCCCAG AACTTCCTAA
21961   TTAAATGGTG GCCCTGATCT TAGTTCCTCT CTCCTCTTAG ACATTTTCCA GGACTACAGA
22021   AGATGTGCAG TTTATAAATG AGTAGCAGAA ACCTACTGAA CAAATTATTC AGGCTCATCT
22081   GAACAGAGAG GACACCTTCT CTGCTATACT CTCTCAGTGA TTTCCCTGCC TTGGGGTCAA
22141   TTATTGTCTT GGACATTGAT TTAAGCACAT AATAATTGTT GTCATTGCTT ATGTTTGGAT
22201   TTCATCTCCC AAAATAGATG GTAAATTCTT TAGTTTAGAG ACCAAGTAAT ACTTACAAAA
22261   AAATTTTGTG TGTGTGTGTG TGTTTTTTCT GTGTCTCTCA GCCCTGTAAT AGCATCGTAC
22321   TTACACTTGT TAGATTTTTA GAGACAACTT TTACAAAACA TGGAATTATC TACATACCCT
22381   TTCTACAAAA CAGACAAATT AAATACTCAG TAGTTGAACC AAAAAAAGCA GTTCAAATAA
22441   AATACTTGAA AATGAAGAAA TCATTTGAAC AGAGTTAAAG TTAATCGTAA AATAATGTCT
22501   GTAAAAATTA TTGCCAATCA AATATAAAGT TCAAAAATAG TGCTTGAAAA AGGAAGAATC
22561   ATATGAAAAG GGACTACTCA TTTTAAAAAT GTTAGATATC AGGAAAAGCC AAGAAGTGAG
22621   TATGGTAAGA GTGCTGTCAA GTGAAACCCT GCTAATCTCA CTGAACATGT AAAAATCTGT
```

Figure 9 (Page 7 of 74)

```
22681  AGATGCCTTT ATTTTATTCA CTCACACACA TATGTAGAAA GAGAAATATA TGGTAAACAT
22741  TAAAAAAAAC AAATTAGAAT GTAAAATTAA TACTTTAAAA AATGGGCTGT ATACTTTTCT
22801  TATCACCGGA GATAAGAATT TATTATTTTT AAAATAAAGT TATTTTCTCT GTGACTGTTT
22861  CCATGACTTT GCTACTTAGA AGTTAGAGAT GCCAAAGTTT ATCTAAGAAA ATGTTTATGG
22921  AAATATTATT TCAATAATGA ATGTTTAGAA GACTGAATTT CCTGACTGGG CACAGTGGCT
22981  CATGCCTGTA ATCCCAGCAC TTTGAGAGGC TGAAGAAGGA GGATCGCTTG AGTCCGGGAG
23041  TTCAAGAGCA TCCTGGGCAA CACAGCGAGA CCCTGCAGCA AAGTAAAAAG AAAAAAGAAT
23101  TGAAAAAGGA AGACTGAATT TCCTTTGGGC AAGTCATGTG ACATTCCTGT GCCTCAGTTT
23161  CTTCATCTAT AAAGTTAATT CCTACATTTT TGGGGAAGGG AGAGAAAAAC TTAGGATAGT
23221  GACTGGCACA GAAGAAGCAC TATATACTAT ATATATGTGG ATATCATTTG TTTTTATGGT
23281  ACCATTTTAG CTATCTAATG CAAAATATGA ATCTTTTTTT TCTGGGTCTT AAATTATGGA
23341  ATGTAAGAAT TTTCTAAATT CTCTAATTCT GTGTTAGTTT TAAAGCAATG GAGTAACGTA
23401  TCTGTCAACT TGTAAATATA AGGATCAACC TGATCCACAA TTTGACCCCT AGCCACTAAT
23461  ATTTAATAGT ACAACACTCA GAAATTATCA AAGGTCAGAG AAGCCAAACA AATGTAAAAA
23521  CATACAGGTG CTCAGAAAGA TGCACCTGTA ATCTCTCTAA GGAGAAATAT TTTCCAAACT
23581  GAGTGACACG GTGCTTTAGT GAGTTGTGGA ATCAATCTCA TGATTTCCAA CCTAGTGTTC
23641  TTTTAAAAAT GAACTAGTCC ACAGTAGAAT ATACTAAAGT GCTGGTGCTT AAGATAGTAT
23701  TGTTTTCTGG AAAAAAAAAA AAAATTTTTT TTTTTTGAGA CAGGGTCTCG CTCTTGCCCA
23761  GGCTGAAGTG CAGTGGCACA ATCATGCTCA CTGCAGCCTT GACCTCCTGG GCCCAAGTGA
23821  TTCTCCCACC TCAGCCTTTT GAGTAACTGG GACCACAGGT ACGTGCCACC ACACCCGGGT
23881  AATTTTTTAA TTGTAGAGAC AGGGTCTTGC TATGTGCTTA GGCTGGCCTT GTGAACTCCT
23941  GGGCTCTAGT GATCCACTAG CCTCAGCCTC CCAAATTTAT GGGATTATAG GCATGAGCCA
24001  CCCTACCTGG CCTGTTCCCT GAATTTTTTT TTCTTTCAGG TGTTTGTGCA TATGTGTGTG
24061  TGTATGGGTA TAACAGAGAG ACAGAGAGAA AGAAACTTTT CTATCACACT TTGCAATCAG
24121  AAGTTTGAAG TCTTATCTTT TGGCTTTTGT TTCAGAAATA TTTCAAATGT AGACTCTCTC
24181  CTTTACCACA CTGTCCCCTT AGGCAAGGTC TTTGCCATTC TTCTGAGACT ATTGCAACAG
24241  ACTCCCAACT TCTGACTGTG GGCCCTTCTC AAAAATGATT GTTTATGCAA TAAATCTAAA
24301  CCCAAGACAA CTACAACAAT ACAACAAATT CTCTGCTTAA AAACTTCCAA TGTCTGCCGG
24361  GCGCGGCGGC TCACGCATGT ATTCCCAGCA CTTTGGAGGC AGAGGCGGGC AGATCACTTG
24421  AGGTGGGGAG TTCGAGACTA GCCTGGCCAA CATGATGAAA CCCCATCTCT ACTAAAAATA
24481  CAAAAAATTA GCCAGGCATG GTGGTGGGCG CCTATAATCC CAGCTAATTG GGAGGCTGAG
24541  GCAGGAGAAT TGCCTGAACC TGGGAGGTGG AGGTTGCACT GAGCCAAGAT CACACCATTG
24601  CACTCCAGCC TGGGCAACAA GAGCAAAACT CTGTCTCAAA CCAAACCAAA ACAAAACTTC
24661  TAATATCTAC CAAATGTTTC ACACAAGTAT TTGGGGATCT TCACAAATGG CCCTTATGGA
24721  GTTTTCCTTT GCTGAGACCC TATGCTCTGG CCACACTAAA CTCATTCAGC ATCCCAGAAA
24781  GGCCTCAGCC TTTGTGAGCA AGCTCTTATC TCCAGGCCTC TCACAAAGAC CTGTTCCAGT
24841  AGAAGCTCAG GGGAGCACAC TGGACATTAT TCCAACAACC CTTTCCCCAC AGCTATGCAG
24901  CCAAATCTGC CAGCTCAGTT AATTAATTAA GCAATTCAGA GATGAGGGTC TGCCCAGGCT
24961  GGAGTGCAGT AGCTGCGACC TCAAGCTCCT GGGCTCTAAG TGATCCTCTT CAGTCTACCC
25021  AGAAGCTGGG ACTGCAGGCA TGTGCCACCA CACCCAGCTA ATTTTTTTTT TTTTCAGTAG
25081  GGACCAGGCC AACCTAGTCT TGAACTCCTG GCCTCCAGCC TTCCGAAGTG CTGTAATTAC
25141  AGGCATGAAT CACTGCGCCC AGCCAACCCG CCCAGTCTTG TTAGACATGG GGTCTGTAGT
25201  TTCTAGTAGG TTCTTGAGTC TAGGGTTCCT ACCTCATGTT TTATAGTTAA TTTAGGGGAG
25261  GGACTGTGTC TGTTTATCTG GGGATGTAGG GGTGGGCAGG GGGATAGAGG GGACTTCAAT
25321  TAATGAAACC AGAAGCAAAA CTCAGTTGAG GACACCGGTC ATGAGAGTGG CCTGATTATG
25381  GCCAATCTTA CATAATGTGT GAGATCTTGA TATTACCCCA TCCTTGAGAG TCCTCTATAA
25441  AGCTACAGGG ACTTGGGAGC ACCTTTAATT ACAGACAACC CATGTTCCTG TGGATTATGA
25501  TTTATTAGAT TGCACATGCC TAAATAAAGA CATCCTCTGC AGTCTTTTGA CAATTCTATA
25561  AGCATCTTCT GACTCCGCAA TTAGACAGCT AAGAGATCTG TGTTACTTCC CTCACATATA
25621  TAAATAATTT TAAATAAAAA TCATGGCGTG AATAATTTCT TTCCTCTACC GATTTGAAGC
25681  TATCCATTTG GAAGACCACT CTGAAGAGAT GAAATAAGTC TTCTGCCAAA GATTACTTAT
25741  TAATTTACAA GGAAAAGGGG AAGTTTTGTT CCTCTCCGTG AATTTGATTG AAAATCGAGG
25801  GCTTTCTCGA ATAGTTTTGG CATCCAGGGT CATTTTTCAT TAAAAAGAGA AAAGTCATGT
25861  CAAATATGAA TTTCCGCAGA TTATTCAGCA CTAGACCCTG GGAGATTCTG TAAAGAGGGG
```

Figure 9 (Page 8 of 74)

```
25921   TTTTGTTATA CTCAACTTTT CCGGGTAAAA CAAACACAAA TACTCCTCCT CCAAGGGGCG
25981   GGGGCGGTGC CTAGGTGATG CACCAATCAC AGCGCGCCCT ACCCTATATA AGGCCCCGAG
26041   GCCGCCCGGG TGTTTCATGC TTTTCGCTGG TTATTACATC TTGCGTTTCT CTGTTGTTAT
26101   GTCTGAAACC GTGCCTGCAG CTTCTGCCAG TGCTGGTCTA GCCGCTATGG AGAAACTTCC
26161   AACCAAGAAG CGAGGGAGGA AGCCGGCTGG CTTGATAAGT GCAAGTCGCA AAGTGCCGAA
26221   CCTCTCTGTG TCCAAGTTGA TCACCGAGGC CCTTTCAGTG TCACAGGAAC GAGTAGGTAT
26281   GTCTTTGGTT GCGCTCAAGA AGGCATTGGC CGCTGCTGGC TACGACGTAG AGAAGAATAA
26341   CAGCCGCATC AAACTGTCCC TCAAGAGCTT AGTGAACAAG GGAATCCTGG TGCAAACCAG
26401   GGGTACTGGT GCTTCCGGTT CCTTTAAGCT TAGTAAGAAG GTGATTCCTA AATCTACCAG
26461   AAGCAAGGCT AAAAAGTCAG TTTCTGCCAA GACCAAGAAG CTGGTTTTAT CCAGGGACTC
26521   CAAGTCACCA AAGACTGCTA AAACCAATAA GAGAGCCAAG AAGCCGAGAG CGACAACTCC
26581   TAAAACTGTT AGGAGCGGGA GAAAGGCTAA AGGAGCCAAG GGTAAGCAAA AGCAGAAGAG
26641   CCCAGTGAAG GCAAGGGCTT CGAAGTCAAA ATTGACCCAA CATCATGAAG TTAATGTTAG
26701   AAAGGCCACA TCTAAGAAGT AAAGAGCTTT CCGGGAGGCC AATTTGGAAA GAACCCAAAG
26761   GCTCTTTTAA GAGCCACCCA CATTATTTTA AGATGGCGTA ACACTGGAAA CAAGTTTCTG
26821   TGACAGTTAT CTATAGGTTT AAGTTGTGAT GCAGCTGAGT TGAAAAGGCT TGAGATTGGA
26881   GAATTAATTC AGGCCAGGCT TCAAGACCAT CCTGGGCAAC ATAGCCAGAC TACCATCTAT
26941   ACCAGGGGTC CTCATTCCCC CGGCCACCGA CCGGTAACCG GTCCCTGTCC ATGGCACGTT
27001   ATGAATTGAG CCGCACAGCT GAGGGGTGAG CGAACATTAA CCAACTGAGC TCCACCGCCT
27061   GTCAGGTTAG CTGCAGCATT AGATAGATTC TCATAAGCTC AAACTGTATT GTGAATGGCA
27121   CATGCAAGGG ATCTAGGTTT CAGGCTCCTT GTGACAATCT AATGCCTGAT GATCTGAGGT
27181   TGGAGCAGTT TTAGTCCGGA AATCATTGCT CCCAGCCCCT GCACCCCCTG GTCCGTGGTA
27241   TAATTGTCTT ACACAAAACG GTCTCTTGTG TCAAAAAGGT TGGAGACTAC TGGTTTTACA
27301   AAAAAGTAAA TTAGTCAAGC ATGGTTGGCA CGCTCCCTTA GTCCCTGCAC CCAGGCGTTT
27361   AAGGATACAG TGAGCTATGA TGGTGCTACC TCACTCCAGC CTGGGTGACA GCGAGTCAGA
27421   CGTTGTCTCA AAACTTAAAA AAAAAAAAAG TTAAAACAGA AAAAGGGCTT CTTGTCAGAG
27481   ACTGCCGTAT ATCTAGAGGT CCAGGAACTA AAAAGTCTGA TGTCCAATCC TGAAAAGCTC
27541   GATGGTGCAC TAGAGGAGGC TTTTACATGT AAGAGCATCT AAGTTCTGGA AATGCCAGTG
27601   TCAGGGAAGG GAAGTGGAGA GCAATTTGGC ATCCAAACAT AACTTGCTGA TACTTTTTTT
27661   TTTTTTAACA CAAGTACTAC ATTCTAGTCT TTCTGTGGTG TCATTGTAAC TATTGTTTCT
27721   TAATATGCTA TCCACTGACT TCAAGGGATC AATAAATAGG AATCAAGGTG TCCCAGAATA
27781   TGGATTAGGG GAGTTTTTTT TTTGTTGTTG TTGTTGTTGT TTTCATCTAT TCATTATCCT
27841   GTAGCTGAAA TTTAGAATTT TCTTCCATTG TGTGTGACTG ATAGAAATAA CAAATTTGTA
27901   GGTTATAGTT GTTGCAAGAA TCTGGAAATC GTGCTTGCTT ATTTCCGAAG TACTATTAGG
27961   TATATCAACA AAAACACACA TATTACGGTC AAGTGGTTTG ATAATTATTT TAATATTATT
28021   GGTCTAATAC AATTGTAACC CTATGAATTA CTTTAAGTAT CTTATTTATG AAAAGAATCT
28081   GTAAGTTTCA TCAAACTACC AGAGCATACC GAAGACTGAA AAATTTTAAG AATCCAAACC
28141   TTAATGGAAA TGTTGGAGGC TGCCCAATTA GGTTCTGAAT TCCACCTTCC TGAATCACAA
28201   ACTTGTTTTA ACTCTCAGTC TGAGGTAAAC TACGTTTCTC TTTAAACAGA CATAGTTTAA
28261   TTTTCCTTTG ATTTTTGATT TAGTATTCTT ACTGATCATC ATAAATAACC AATGCTAATG
28321   TTAGTCTACT TTGGACCATG GTATTTCGAG AAACTTTGAA CAAAGTCCCC TGCAAAACTA
28381   TGCATTGCAT TATTTCACAT ACATTTATGT TTTCCAGACG GTTCAATAGT ACCTCACTTT
28441   TCTGAACTTA TTTGTATAGT TTGGCATCTT TTTAAAAATT GTGTCCTATA ATGAAAGGTT
28501   GTAAACATTA TGTTTTAAAT TTGTATAGAT AAAATCAACC ACAGACCTTT CCTTGCTTGG
28561   ATGTAATTGC CATTGTTTCC CAATGAGTTC GGAATTACTA GGATTGTGCA AAAATATGCC
28621   TCACTTGCCT GACATAGCAG AGAGCCATTT TGCCTAAATG CTGTGCCCAG CAATGGACTG
28681   TCACCAGATT CTCATCACAT ACAGTGAGGA TGAACAACTA GCCTCTCCCA GCAGCTGGCC
28741   GGTCTCTCAA TAATATGGGA CTCCCTCAAG ATGGCTTCCT GCACCTTTGC TCCTCTAGCC
28801   TTGTATGTAT ACAAGGCTAG CATGCCTGGC ATACATAAGG TTAAAAACAA AATCAATAAG
28861   TTATGGTTCT TCCTCCAGTT CTGGGGATTA TTAGACCACT TTTTTGTTTT GTTTTGTTTT
28921   GGATGGAGCC TCGCTCTGTC ACCCAGGCTA GAGTGCAGTG GCACAATCTC GGTTCACTGC
28981   AACCTCTGCC TCCTGGGTTC AAGCAGTTCT CTGGCTCAGC CTCCCACGTA GCTGGGATTA
29041   CAGGTGCCCG CCACCACGCC CAGCTAATTT TTGTATTTTT AGTAGACGGG GTTTCACCAT
29101   CTTGGCCAGG CTGGTCTTGA ACGCCAGACC TCGTGATCCA CCCACCTTGG CCTACCAAAC
```

Figure 9 (Page 9 of 74)

```
29161  TGCTGGGAAT ACAGGCGTGA GCCACCGCGC CCGGACTTAG ACCACTTTGT TTTGGCCAAT
29221  AGGACAACAG CCATAGAACC CTCCGCAAAT GAGAGCTTGT CCCTAAAGAT GCTTTATTTA
29281  CATAGCTGTG TGCCGCATGA GCCAAAAGGT GATAACCTTT GTTCAACACG CGCCTCCAGC
29341  CCTTCGGTTA AGTCCAAAGT ACCATTCTTA GAATGCTCTA AAATACATAA TTTTTTTTTT
29401  TTTTTTTTTT TTTTTGAGGA GTCTCTCTCT GTCTCCCAGG CTGGAGGGGA GTGGCGCGAT
29461  CTCGGCTCAC TGCAATCTCT GCTTCCGGGC TAGCTGGGCC TACAGGTGCA GACCACCACG
29521  CCCGGCTAAG TTTTGTATTT TTTTTGGTAG AGGGGGTTTC ACCATTTTGG CCAGGCTGGT
29581  CTCGGATTCT TGATCTCAAG TGATACACTA GCTTTGGCCT CCCAAAGTGC TGGGATTACA
29641  GTCGTGAGCC ACTGCGCCCA GCAAAATGCT TTTTGTGGAG CCAATCACTT TATTAGCGCT
29701  TACCTCTCTA TGCCTACTTT ATGCTTTGAA ATTTTGTCAC AGTGGGGCCG GTCATGGCAA
29761  ACACAATTCA TTCTTATGCA GGCTGTCACG GTTATTTCTG TCATCCAAAC TCATTCTCGC
29821  AACGCATTTC AGCTCTTTAA ACGACTTTGT GAGCGGCCCT GAAAAGGGCC TTTGGGTTTT
29881  TTTGTTTTTG TTTTTTGAAG TTCTCAGGAG ACCGCGTATT CTTAGATTCA GCCGCCGAAG
29941  CCATACAGAG TGCGCCCCTG ACGTTTCAGG GCATATACTA CATCCATGGC TGTGACAGTT
30001  TTGCGCTTGG CGTGCTCCGT ATAGGTGACG GCGTCTCGAA TAACGTTCTC TAAGAAAACC
30061  TTAAGCACAC CTCGAGTCTC CTCATAGATA AGACCGGAAA TGCGCTTGAC GCCACCGCGC
30121  CGAGCCAAAC GGCGGATAGC CGGTTTTGTA ATGCCCTGGA TGTTATCCCG GAGCACCTTA
30181  CGATGGCGCT TAGCACCACC CTTCCCCAAG CCTTTTCCGC CTTTGCCGCG ACCAGACATG
30241  ATTCCTATCG CAGTGGAAGG TATGAACTGA AACAGTTCCT TAAATACAAA CTTGGCGGAC
30301  CTGATTGAAA ACAACATGAG TTGGCGCGGT TTTTTTTTTT TTTCAAATTT GGTCACCGAG
30361  TGGGTGGAGC AAGAAAAACT GTTTCATTAT GGTTCATTGT TTTGATTGGC CAGTGACAGC
30421  TTGCTCTTTG TGGGAGTGGA AGGGTGTTTG CAAGTTGAAT GCGCTGTATT CCTGTCAGCT
30481  TAATGACGCT AAGCATAGCC CCATTCCACA TTTCTTTTTA TTTCCACTTG CTAACTAATA
30541  AATTACGGAA TAGTTTATTG GGGAACATAC AAATAATGTT TAAAGGAGGT CAGATTTATA
30601  GGTCAAGGGA TTTACCCTCC CAATCATTTT AATATTTTTA TTTAAACCAG GCATTTTGAT
30661  GGCCTTCTCT GTGCTGGACA AGGTATAAGT TTGGCTATGA AGTTTCACTC CTAAAGACCC
30721  TATGTTTTGG GAAGGCAAAA AGGTAGCCAA ATAATTGCAA ATTAAAACCT CATAAGTGCA
30781  AACTTCTTCC TCGTCACTTT CCCTATCTCG ATTCAAATAT TTGTTGAATG ACTCATTTTT
30841  CTGCAAAAGT CTGAGAGAGA CAGGGAATAT AAACTTAAGT CTGGATAATA TGTTTTCCCG
30901  GGACGCTCTT CCTGGTCTGC TGTGCCTGTT TGCTGTGCCT GAAATTCCAA ACACTCTTCC
30961  CTTCCCTCCG TTTTTAATCC CCTTTCAACT TGCTACAGCT TTAGAGAAAA GAACATACGT
31021  TTTGTACAGT TGGGGATTAA TTGAAGTGTA GGGCTAATAC TTGATTAAGG TCATTACAAA
31081  ATCTACAGGG TCTTCCTCTG GGAGGTTTTT GTGATAAGAT TATTGGTGTT AAAATAAGGC
31141  TAATCCCCTT GAAAAATAAA TAGAATAGCA GAATTGGGTC TGAATGTGGT TTGAAGAAAG
31201  GGACTTCTCA ATTCAAAATT TTATTCTTAG CTTCCTGTGG GAGCTTTCCA GAATGCCCAT
31261  AAGATCCACT TTTGTTTAAA AAACAAAAAC AACCCCACCC ACCACTCTCT GGTTAATAAA
31321  TGAATTTCTA TTGGGAATAT TTAGAATGGG GCTGTGGCCT GTGAGAGACA TTATATAGTA
31381  ACCTCAGACT TGCTCACATG AAGAGAAGAA ATCCAGGAAT GGAGAAAAAA GACCCAGGAA
31441  AGGCCAGAAT GCTCTACATG TCATATTGTT TGTATCACTT CTGAAATAAT TGATTACATT
31501  CTTCTGCCCC AAATTGAGTT CTTAGGTTCT TCCACTCACT GTCCACATGC CACAACACAG
31561  ACCTTATAAC TAGAGACTTA GCTAGGAAGA AATGTCAAAC ATTACAGAGA AAAAATGCAG
31621  AGTCTGAGAT CATAAGTAAA ACTCTGAAAT CTCAACATGC CTTTTAATTC ATGAAAATAA
31681  AAAATATAGC AGCATATGCA ATATGATAAT TCTCTGAAAA CATACATCAT GTGAACTACC
31741  CTGGAACACA TCTCGCCAAG TGCCATCTTC ATTTTAACCA GAGGTCTAGG ATGCCTTTCC
31801  TTTATTTTGC CTATTATATC ATTTATAAAA CCCCATTTTT ATTTTGATAT TTTATTTACT
31861  TTCTATTTCC TGCTCCTAAT ATCTCCTTTC TAAACTTTTC TCAATGACAG TGACTCAAAA
31921  ACAATGAATG TCAGAACAAA TATTTAAAGG ATCTGTACAT GTAGATATAT ATATTTAAAA
31981  TGGATTCTTC CACTCTGGGA AGAATTCAGG CATACTCAAT CTTATGGTTA GGGAGAGATT
32041  AGGCTCACTC GCCTAATCTG TATGGCTTCT CGTTCGCTTT CCATTTCACC TTCCTCTCAC
32101  CCATCAGATC AAACTCATTC ATTGAACAAG AGACCTAAGC CCTTCAGATT AAAACTCTGC
32161  AAACAAGTTG TGGTTGAGAG GATACATGAA GCATTCAAAC AAATAAATCT ATGATATTAA
32221  TCAGAGGTTA ATCTATGATA TTAATCAGAG GTTAATGCAG TGGCTCACGG CTGTAATCCC
32281  AGCACTTCAG GAGGCTGAGT TGGGAGAATC GCTTGAGCTC AGGAGTTCAA GACCATTTTG
32341  GGCAACATAG CAAGTCTTCA TCTCTACTTA AAAAAAAATA ACCAGAGGTG TTATGAAAAT
```

Figure 9 (Page 10 of 74)

```
32401  ATAAATTGTC CAGAACTACC CTCCACAAAC TAACTCTCTC AGAATATTCG ATATGAGGAA
32461  TGAAATATGG TGTGTGTGTG TGTGTGTGTG TATGTGTGTG TGTGTGTGTG TGTATGCACC
32521  TATATATGGC ACCTATATAT TCAACAAACA ATTCTGATAA TTGGCCAGGG TTGAGAATGA
32581  CTAGCAGCCC AGCATACACT ATCAGTTTTA AGTATATAAT TGCGCTTTAG TAAAATGTAA
32641  AGAAATCCCA GAGTAGAAAT ACTTTTAAGC TATATTACAG GTGAGAAAAT GCATAAGTAT
32701  AGTCTCACCC AACTTAGACT ATGGGGGCTT TATAATGTCA CAACAGTTGT TTCCAGGCAT
32761  TTGGGGACAT CACCACTGGT CTTGGGCAAG AAACTCCTCT AGCCAATGGC TGATTTATCT
32821  CACTCCCATC TAAGGCTTCA CTGCATTTCT CTTTTTCAGC AACCTAACTT ATTTAAAAAT
32881  ATCCATTTTC TGATTCATTT TTTTCTGAAT TAAACTGTCA GTACCATTGG CACACCTTTG
32941  GTTCCGTAGC ATACCTGTGT CTCTGCTGTG GTTTTTTTTA CCTCCACTCC TTACTTTTCT
33001  AGAAAAAAAT CTCTGCTTTT TCTTTTCAGT TTAAATTATT TCACAAAAAG TTTTCTTGAC
33061  TTGCACTTCC TAGGCTTGCT GTCCTTGTGT GGGCACGCTC CCATAAACAC TATTAATACA
33121  CTTCGATTTG TTAAAAATAA AGATATCTGG ACAGAAAATT TCTTTTCTTT TTTTAAGATT
33181  TTAAAATTTT TAATGTTTAT TTTTTTCCTA GACTGGAGTA CAGTGGCACC ATGATGGCTC
33241  ATGGTAGCCT ACACTTCCCC GGGCTCAAGT GATCCTCCCA CCTCAGCCTC CCAAGTAGCT
33301  GGGACTACAG GTGTGCACAA CCACACCTGA CTAATTTTGT TTATTTGTTT GTTTTGTTTT
33361  TTGAGATGGA GTTTCGCTCT TGTTGCCCAG GCTGGAGTGC AATGGCGGGA TCTCGGCTCA
33421  CCGCAACCTC TACCTCCCAG GTTCAAGCAA TTCTCCTGCC TCAGCCTCCC GAGTAGCTGG
33481  GATTACAGGC ATGCATCACC ACGCCCAGCT AATTTTGTAT TTTTAGTAGA GACGGGGTTT
33541  CTCCATGTTG AGGCTGGTCT GGAACTCCTG ACCTCAGGTG ATCTGCCCGC CTCGGCCTCC
33601  CAAAGTGCTG GGATTACAGG CGTGAGCCAC CACGCTCGGC CACTAATTTT GTATATTTTG
33661  TAGAGATGGG CTTTCCCTGT GTTGTCCAGG CTGGTCTTGA ATTCCTGGGC TTAAGTGATC
33721  TGCCCACCTT GTCCTCCCAA AATGCTAGGA TTACTGGCGT GAGCCACCAG GTCTGGCTGG
33781  AAAGATAATT TCTAACATTA TCCTCTCTTA AACATTTGTT TCAAAAATTT TACAAACATG
33841  AGAGTAATTA AATTTGATTT TCAAAATTCC CTTGAATACT TTCTTAATAG CACACAGAAA
33901  GCACAAAGTA TTTTACATTT GTTTTAATGA TGAAATTGTG AACCCAAACT TACACAAAGA
33961  AAAACCGTAA CATTATACCC ATACTTAAAA CAGATGCCCT CATATACATA GTAAAACTCT
34021  TGGGGGCAGT AGTGAAGTTG GTTATTTACT GTTTTATGAA AGTGCCATTC AGCCGGGTGC
34081  AGTGGCTCAT GACTGTAATC CCAGCACTTT GGGAGGTCGA GGCAGGCTGA TCACGAGGTC
34141  AGGAGTTCAA GACCAGCCTG ACCAAAATGA TGAAACCCTG TCTCTACTAA AAATACAAAC
34201  ATTAGCTGGG CGTGGTGGTG TGTGCCTGTA GTCCCAGCTA CTCAGGAGGC TGGGGCAGGA
34261  GAATCGCTTG AACCTGGGAG GCGGAGATTG CAGTGAGCCG AGATCGCACC ACCGCACTCC
34321  AGCCTGGGAG ACAGGGCGAG CTCCGTCTCG AAAAAAAAAA ACAAAAAAGT GCCGTCATAG
34381  TGACTTAGTT TTAAGGAATA AATCAAGGAT ATTTAACTCA ATAGACTACA GTTAGCTAAC
34441  GTGACTTGCA CTGAAAGTTA TACGAATATT GGTACTTATT CCCCTGCCCC TGAAGTATGA
34501  ATTAAAGACT CCAAAATTCT TTTTAGAATC TTCAGAGTAA AAGCTAGAAT TTGATTTTTT
34561  TAAATAATAA AAAAATACTT TGTATCTAAA TCTGGTGTAT AAAATAACTT GGTGGATGAT
34621  GCTTCAAGGC TATCCATCCC CAAATTTCTC CCTGAATGAT AAAGAGAATA AATGAATATG
34681  TCAATTCAAA AGTTAGAAAT TTGGCCGGGC ACGGTGGCTC ACTCCTGATA ATCCTTTCGG
34741  ACGCTGAGGT GGGTGGATCG CATGAGCTCC GGAGTTCAAG ACCAACCTGG GCAACATAGC
34801  CAGAACCCGT TTCAATAAAT AATAGAAAAA AATGAGCCAG GCGTGGTGGT CCCAGCTACT
34861  CAGTAGGCTG AGGTGGGAGG ATCACTTGAG CTCAGGAGGT CGAGACTGCA GTGAGCCGTG
34921  ATCGCAGTAC TGCACACCAG CCTTGGTGTC AGACTGAGAC CCTGTCTCAA CAACAACAAA
34981  ACAAGTTAGA AATTTGGCTG GGCGCGGTAG CTCACGCCTG TAATCCCAGC ACTTTGGGAG
35041  GCCAAAAAGG GCGGATCATT TGAGGTCAGG AGTTCGAGAC CAGCCTGGCC AACATGGTGA
35101  AACTCCATCT CTACTAAAAA TACAAAAAAA CTTAGCCGTG CATGGTGGCA TGCGCCTGTA
35161  GTCTCAGCCA CTTGGGAGGC TGAGGCAGGA AAATTGCTTG AACCCAGGAG GCAGAGGTTG
35221  CAGTGAGCCG AGATCATGCC ACTGCATTCC AGCCTGGGTG ATAGAGTGAG ACTCCATCTC
35281  GAGAAAAAAA AAAAAATTCT GTATGAACTG AACAAAATAT CCTTAAATTT TAAAATACAT
35341  CTGAAAGATA TTTCAAAATA TTTAGGAAAA AAATTATAGG GATCAGGCAA ATTCTGAGAT
35401  TCCTTTTTCC CTGCAGCAAA CATTAGGAGT GCTGCTGTTC CTAAAAACAT GGTAACTGTT
35461  GCCACACCGT ATGTTTCCTT GGCTCAGACA TAAGGTTGTG TAGTTGTTAT TCCAGAATAG
35521  CTAGAATAAA AATCCAGCAC ATCATTTTCT TCAGCAAGTT AACTAACCTC TCTGTGCCTT
35581  GGTTTCATAA CAGCAACATA AGCATAACAG AATAGCAGCA ATAGCTCCTA CCTACCTCAT
```

Figure 9 (Page 11 of 74)

```
35641   AAGATTCTTT GGAAGAATTA AATTAAGATT CAGAACACAG CCTAATATCT AGTAAGTAAT
35701   AATAATTGGC TAAAAAAATT TTCTTAAGAT TATATATATT CATGGGGTAC AAGTACAATT
35761   TTGCTACATT AATATATTGC ATTGTGGTGA AATCAGGGCC TTCAATCCAT CCCGGAAAAA
35821   AAAAGTTTTT GAAAAGATTT CTGCCATGGA AAACTTTTAA TGTACAAATT CATCCATCCA
35881   AGAAATAGAA AATATATAAG TATCAACTCC AAATCCACCA TATCTATCTC TTCTGCACCT
35941   TAAACAATTA CTCAGAAATA GAATGCTTGA GATACCAGAA TGCATGCATA TCAAGTAATA
36001   AATGCATGCA GGATGTCAAC GCATCCTAGG CTTTCAAATA AAATTGTCAT ACAAAATACT
36061   TTAATATTGT AGTAACATTC TACATGTTAG AGTGTAGAAG TTAATCGCTG ATGCAAAAAA
36121   GGAAAAGAAC ACATTATACC CAAAGCCTAC AGAGAGAATC ACAATTACAA ATATCAGCCT
36181   GCATGTGAAA ATCTTTAATT TGAAAGTCAG AAATATTTAA ATGATAGTCA TTGTTAAATC
36241   AGATTGTGGT TTGAAAAAAA GTTAGTTTAA AACTGAGTTT ATGAAAAATT TGGGGATTTT
36301   AGAGACAGTG TTTTGTTTTT AAATGTGTGT GAGTTTGTGA AGAATGTTTT ATAAAATACT
36361   GACAGTATTA TAAGATGACA TTATTATAAT ACAACATAAG AATTTTGGCC TGTACCTCTC
36421   AGCAGTCCTC AATCACCTGC TGTACTTGAC TCAATGATTA TCAGAGTGGT TTGTTTTCCT
36481   TCTGTTGTGT TCCCAGTTCA GGCAGCTCAG CAATGGCCTG TGATTCCAGC AATTCAAATA
36541   GCTGGTAAGT AGTTTCTTGT TTGTTTTCTC AAATTTTCAG GGGCTTTTCT CTACAAGTGA
36601   TTTCCAGTGC ACGCCCCTCC ACCCATTCTT TATTCCTTTA CCTTCAGGAA AACCCTCAGC
36661   GCTGCATCTC TGGTCACCGG ACCACCGTGG TACATTTACC TATGGCCACC AGGTGTCACC
36721   CTTCTCTTTA CTACCATGGT TTGTGAATGG TTTTGCCAGA GGTGAATAAG AATTTAAAAT
36781   GCAGGTCTTT GATTTTTCAA ATGTAGTTGA CCTTAAGAAT TTATGAATAA AGCCAGAAAA
36841   ATTAAGCTTA AAAAACACCG AAAGAAAATG AGGACTTAAA ATTTCTATTA AAAAAATTAA
36901   CAGGCCACAG TTGCTGATGT TTAGTAAATG TGTTAGTGAA ATGTGTTACT GTGAAGACTG
36961   GGGTGTTTCT TGAAATCTCA GCCCAGGTGA AATAAAACCA ATATAAAACA AATGCTTACC
37021   TAATAAATTA ATTGTAACAT ATTCCTTATG AGGTAGAAGA GTAAGTGAAG CCTTATAGCA
37081   GTCTGCTTTC AGTATAGTAA GATATTAAGA GAGAAATAAT TTGTCATATG CTTTCAGAAT
37141   GGTTTGCTGG TAAAATAACC AATGTCTTAC AACTTAGACG ACAATGTCCC TAGAGTGAAG
37201   AAACACGATT AATTCGGCTA CCACAGTTGA ATGAAAATAT TCCGTAAGAC AAAATGTAAA
37261   GAAATTAGAA GCAAAATAAA TGTCTCCAAA ATGACAAAGC GATTAAGTAT ATACACAAGA
37321   TGAACAAGAA CTTCAATAAA ATCATGCAGT ATACAATACA ATGTACATTT ATTAAAGTAT
37381   ATGCATTTTT AATGCAACAA TAATACTAAC AGGTAATAGA CAAGTTGTTA ATAGTTTTTC
37441   ACTGGCTAAT TAAATAACAG CTTTAATTGT ATTCATTTTA TAGCTTTTCT ACAATGAGCG
37501   TAAATCACAT TTACTTTTTT CTACATAACT TTTCTAACCA CAAAAAAAGA AAATGGTTTA
37561   AAAGAAGAGA TGAGATATCT TTGCTAAAAT TTAATGCCTA AAGAAGAAAC TTCTGAGCTG
37621   TATATGGTAT CCTGAAGCAC CTGCCCTTCA AGACAGAATG CTTGTACCAC ATTTATGCAG
37681   CCAAGTGCAT GTAGTAACAT AAAGTAAACA CATGCCATCT GGATATATAT ATTAAGACTC
37741   TTTTGACGGC TGGGCAGGGT GGCTCACACC TGTAATCTCA GCACTTTGGG AGGCCGAGGC
37801   AGGCGGATCA CGAGGTCAGG AGAGTTCGAG ACCAGCCTGG CCAACATGGT GAAACCCTGT
37861   CTCTACTAAA AATACAAAAA TTAGCCGGGC ATGGTGGTGC ACGCCTGTAA TCCCAGCTAC
37921   TTGGGAGGCT GAGACAGGAG AATCGCTTGA ACCTGGGAGG CAGAGGTTAC AGTGAGCCGA
37981   GATCATGCCA TTGCACTCCA GCCTGGGCAA TAGAGTCTCA AAAAAAAAAA AAAGACTCTT
38041   TTGAACATGG TGAACTGATT TCCCAGAATC TAGCAATTCC TGAATGTCCT GGTTAGATTT
38101   TTTTTTTAAT GTGCACCGGA ACCCCAGTGG CTCCATGGAA GGACCTGGGC ATCCTCTAAG
38161   CCACTTGGTG GCTTCCATTA TACCATCTCA AAATGAGAGA GCTTACTCCA CTTCATTGAG
38221   GGAAATACCA CCAGAGTTCT GACTCCAGAG GCACTGGCCT AGGGAGGACA CCGTGTGTGA
38281   AGCCCAGCAG GGCCACTAGC TGTCCCCACC AATTACAGTC CTTGCGTAGG GTCCAAAGAA
38341   ATGAATGCCA AAGAGAGCAA CAGAGGAGCA AGGGAGTCAC ATTCCAGGAC CTTCCTTCAG
38401   GGACTTTTAA AGGAAACATG ACAGCTGAGG ATCAGTTGGT TGTTTTCTGC TGTTCCCCTT
38461   CATGTGATTC AAGCTCATTC AGAAGAAACA CAATGAGACA AGAGAAGAGC CATCTCCTTC
38521   CTTCTCTATT TATTCTAGGC ATCTAAACTA CTGAATGTAG TGGTGTCTGA GATGTATCAA
38581   ACGGTCAGAT TGACTGAGTT TGAAACCTGT TTCTATCACT GACAAACTAT GAGATACTCT
38641   ATACTTCACT TTCTTTTTTT TTTCATTTTT TTATTTTTAT TTTTATTTTT TTGAGATGGA
38701   GTCTCACTCT GTCACCTAGG CTGGAGTGCA GTGGCGCAAA CTCGGCTCAC TGCAAGCTCT
38761   GCCTCCTGGG TTCATGCCAT TCTCCTGCCT CAGCCTTCCG AGTAGCTGGG ACTACAGGCG
38821   TCTGCCACCA CGCCCAGCTA ATTTTTTGTA TTTTTATTAG AGATGGGGTT TCACCATGTT
```

Figure 9 (Page 12 of 74)

```
38881  AGCCAGGATG GTCTCGATCT CCTGACCTCG TGATCCACCC GCTTTGGCCT CCCAAAGTGC
38941  TGGGATTACA GGCGTGAGCC ACCGTGCCCG GCCTACTTCA CTTTCTTCAT TTAAAAAAGA
39001  AATGGGGATA ATAGTACCTA TCTCATAGAA TTATTGTAAG AAGTGCATGC AGTAATGCAT
39061  GTAAGTAGGT GCTCAGAAGA GTCGGACACG AAGTAAGTGC TTTTATCATC CTTATCATAA
39121  TTTTCATTAT CAGAACAAGG AGAGACCAGG TAGAAAATTA TTGTGATTCT TCAGGTCTGG
39181  AATACTAGAG TAGCATCCCA AATGAAGGCA CCATTAAACT TTGCAAATCT GTATGACACC
39241  TTCATGCCAA TTAGAAAAAA CACCTCTTCA CAACCCCTTT CAAGATATTT GCCTCCTACC
39301  TGCTAAAAAC ACCCATCATA CTACCCACAG ATAGCCATGA TGCTTTTTCT GGGACAGGTG
39361  CCTCTTCCAT TCGTGCAGTG TACAGCCTTC ATAGCTGTGC AACTCACATC ACAATCAGAT
39421  GGAAGAATCC CCAAGGCTTG GTGACAGATG AGTTACTGGG TAACACAGAG AGAGGATTCA
39481  AAGGAAAAGT TGAACGGGTC CAGAAAATGC ATAGATACAT GTGTAAAAAT CTGGTAAGGT
39541  TATGACTAGC CACGTCCCAG GGTTCAAAGC TTTTCTCAGA TGTTAAAATG AATCATGTAA
39601  GTCCCCCAAA TTTAAGGAGT CCTCTTCCAA AAATAGGAAA TGAAATGACA TAGGTGTATG
39661  TCTCTGAGGT GACGGAGGAA ATGAAGGAAG CCTCTAGATG CAGCTTGAGG TTCATGAGAG
39721  ACAGTTCCAG GGGAGAGGTC ACAGCTAGGG ATCACCGGCA TGCAGGAACT CAGAAACCTA
39781  AATGGGGAAA TCTTTTTGAG GAAATGAACA GAGAAGGCTA AAATCAAGGA GTTCGTCAGG
39841  CAATTTCTAT GTTTAGGTTC AACTCTCTCC TGAAACATGA AGAGCTCATA AATGCACTCC
39901  CTCTTTGAGT CTCTAGTTTT GTCTCCTTCC CACAGTGAGT CTGCAGGCTG CGTGTCACTC
39961  ACGTTCAGCT AAGACGTAGT GCCCCATGGC TCCTCCTGTG GAGACAAGAG ACCCAGGAAA
40021  GAGGCATCAC AAACCTAGGC ACCATCTTGC CTCTTCTCTC TTCCTTATTT TCCTCATTCA
40081  CCCATCTCAA TTTAGACCTG GGCACTATTG GATTTCAAGA ACCATTATCT CTCATCTGGA
40141  AATGCTTATT GGCTTTCTAA CTGGTCTCCT CACCTCTCAT CTAACTTCTT AACAACACAT
40201  TCACCATATA AGGGAGATCG TGGTCCTCCT TTCTTAGGAT CCTTCAATGA CACCCCAGTG
40261  ATCATAACCC AATATCCCAA AAGACCCTTG GACTCTGTAT GAGCTGGCTT CTTTCTGATT
40321  CTCTTTTCCC TACACCACAG ATGTTCAGGG GGTAGAAATG CATAATTGGT GAGTGATAGC
40381  TAAGCAAACT CAGGGTTAAG GTACAGTAAT TATTTCTAAT CTCCCAGTAT GCCTTATACT
40441  CTCCTACTTG GCATGGTTGC TCCGTCTGTG TAGACCTCCC ATCATCTTCA ACCTCACCTA
40501  ATGGAATCCA GCTTCTCCTT CAAGATCCAG AAGGCTATCT TGATCCCCAG CTGAATGTGA
40561  TCATTCTTTC CTTTGACACC CTAAGCATTT GCTTCCTGCC TGCTTTAGGA CCTCATGGGG
40621  TCTTCTTTAA CTACATTTAC TTGCTATCAA TTTCATTCCC TACCAGATTT GGGTTCTGAG
40681  AATAGCCACA GTGACTTCTC AACCTCAAAG CCCCTGTACT ACCTTAAACA GCTCTTGCAA
40741  AATAGTAGGT GCTCTGAAGA TGTTTGTTGA ATTAGAGACT TTCATTCTGG GGAGAACCAT
40801  TATTTTCTGT CTCCCAGGGA GCTGCTGGTG TCCCCAAAGA ATATAAATGA GAAAAATGCT
40861  TCCCATGGAT GCCAGATCCC CTCTGCCCCT CTTCCCACTG TGCCCTGGGG CAGAGGTACT
40921  AAGAGACTTC CCCCTTGTTC CTACTCACTT GAACCCTGCC TCTTCCTTAA TATTATGAAC
40981  AAAATTCCAA TGAACAAGAT GACGACAAAA ACAGCAATTC CACTGATGAC TCCAATGACT
41041  AGGGTGCCAG ACGGTGAGGG CTCTAAAACA GAAAAAGCAA GTTAAAGCCT TTGATTGCCA
41101  CCCTCAGCCC ACCCCCTAAC AAAGAGCAGA TCCTCATCTC ACTGCCATAA TTACCTCCTC
41161  AGGCACTCCT CTCAACCCCC AATAGATTTT CTCAGCTCCT GGCTCTCATC AGTCACATAC
41221  CCCAGATCAC AATGAGGGGC TGATCCAGGC CTGGGTGCTC CACCTGGTAC GTATATCTCT
41281  GCTCTTCCCC AGGGGGTACA GCCAAGGTTA TCCAGCCCTG GTAGGTCCCA TCCCCATTGG
41341  GCAATACGTC TTTAGGTTCG AACTCCTTGG CATCCATTGG CTGCTTATCC TTCAGCCACT
41401  TCATGGTGAT GTTCTGGGGG TAGTAGTTCA AGGCCCGACA CCGTAGAGTG GTCACTGAAG
41461  AGGTCACATG ATGTGTCACC TTCACCAAAG GAGGCACTTG ACAGGAAAGA GGAAGGATGA
41521  GGAGAGGGGA TCTGTTTACC CTTGCCAGGA AGACTGGAAC TTTCACTTCC TTCTATAGGT
41581  TGGAGGAAGG AAATACCCTT TTCAGAAAAA AACAAGCTAC AGGAGAGACA CCATTTTGTG
41641  TCCTAAGATT GGACTCTAAC ACAGTGTCAC TTGGAGAGCA GTCAGATCAG CTTGTTCTCC
41701  TCACATGTAA ATATACATAT CTGTTACCCA TGTTCTTTGT TCTGATAGAT AAAATTGCCC
41761  TTTATGTGCA TTGAAAATGA TTGAATACAG ATGGTCAGTT TCACCTGGGT CAACCTAGGA
41821  GGCATTGTTA TAAGAAGCGG ACTTGTAAGA TAGGTAGCTT CAGTGATTAT TGCTATGTTC
41881  TATGAAAGAA ACTTTTAACC TAAAGGATTC TTCTACTCTG ATAAGTGGCC TCACTTGATA
41941  TTTTGTCCTG GTATTCATAT GATAGCTGAG ATCTCTGAAT TCTCTTTTTT TTTTTTTTTT
42001  TTTTTAAGAT GGAGTCTCAC TCTGCTGCCT AGGCTGGAGT GCAGTGGCGC GATCTTGGCT
42061  CAGTGCAACT TCCGCTTCCC AGGTTCAAGC GATGCTCCTG CCTCAGCCTT CCAATTAGCT
```

Figure 9 (Page 13 of 74)

```
42121  GGGACTACAG GTGCGCATGA CTGTGACCAG CTAATTTTTG TATTTTTTTA GAGACGGGTT
42181  TCACCATGTT GGTCAGGCTG GTCTCAAACT CCTGACCTTG TGACCACCCG CCTCGGCCTC
42241  CCAAAGTGCT GGGATTACAG GGGTGAGCCA CCGTGCCCGG CCTTGACATT TCTGAATTTT
42301  TAACAGGTAT AAATATACAA AAGATTATTG GTTAAATAAA AAGCAAGGGC CATAGACACT
42361  TCCCTTTGAG CCATATGCAT GGAGAAAAGA AATTAAACCC ATGACTTGTG GCTGTCTCAT
42421  ACATCTCAAT TATAAGGTAG AGACTCTAGG ATTGAGAAAG TCCCTTCCCA GAATTTGGAG
42481  AGGCACACAG CCTCAGCCAC CTCTGAAACT CCAACCAGGG ATTCCGTGCC CTGCAACCTC
42541  CTCCACTCTG CCACTAGAGT ATAGGGGCAG AAGTGTGTTT CCACCATACC TTGTTGGTCC
42601  AAAACACCTC TCCCCAGCTC CAGCAACTGC TGCAGCTGTG CAGGGCAGTC CCTCTCCAGG
42661  TAGGCCCTGT TCTGCCTGGC CCGAATCTTG TGCCTTTCCC ACTCCAGCTT GGTGGGCCAG
42721  GCCCTGGGTT CTGCTGCTCT CCAATCCAGT GTGTCAGGGC AGAATTCAAG GTGGTCCTGC
42781  CCATCATACC CGTACTTCCA GTAGCCCTCG GTACTGTTGT CTTCTTGCAT TTCACAGCCC
42841  AGGATGACCT GCAGGGTGTG GGACTCTGGA AAAATCCCCA GCCTTGTTAA CTGCAACCAA
42901  AGGAATAGGT CCCTATTTCC ACCATCCCCA AGGACCAAAT GATCTCAGGA AGCAAATTCC
42961  TTCCCTCTTC CCTGCTCCCA CAAGACCTCA GACTTCCAGC TGTTTCCTTC AAGATGCATG
43021  AAAAGATGAA AAGCTCTGAC AACCTCAGGA AGGTGAGGCC CCCTCTCCAC ATACCCTTGC
43081  TGTGGTTGTG ATTTTCCATA ATAGTCCAGA AGTCAACAGT GAACATGTGA TCCCACCCTT
43141  TCAGACTCTG ACTCAGCTGC AGCCACATCT GGCTTGAAAT TCTACTGGAA ACCCATGGAG
43201  TTCGGGGCTC CACACGGCGA CTCTCATGAT CATAGAACAC GAACAGCTGG TCATCCACGT
43261  AGCCCAAAGC TTCAAACAAG GAAAGACCAA GGTCCTGCTC TGAGGCACCC ATGAAGAGGT
43321  AGTGCAGAGA GTGTGAACCT GGAGACAGAG CAACAGGCCT TAACCATGTG TAGTAGGAGG
43381  GGAGCAGGAT GTTGAGGCTC CACACACCTG CATCAACTCA TACCATCAGC TGTGTCTGGT
43441  CCTCATTTTG TGAAGGGTGA GTTGCAGTCC TGTCTTTCTT CCATATGACA GTCCTGGGTG
43501  CTCTTTCCTT GTGTGCTTTT CTCTGCCACA CGTGGCTGCC ACCCCCTCAC TGCCCCCAGA
43561  TCCTATTCCA ATACTCATGA TTAGACAGAC TCCACTAAAG CTGGTGGATT CTAGAAAATG
43621  TTAAGGTGTG TCTAGCCATG GTAGTTGAAC TCAGGAGTTG GTGCTCAGGG CAAATTAGAC
43681  CCAAATCCTG AGGAATAATT CCTTCAGTTT TTTTTTTTTT TTTTTTTTTT TTTTTTTTTT
43741  GAGACAGAGT CTCACTCTAT CACCCAGGCT GGAGTGCAGT GGCACAATCT CAGCTCACTG
43801  CAACCTGCAC CTCCTGGGTT CAAGGGATTC TCCTACCTAA GCCTCCTGAA AACCTGGGAC
43861  TATAGGCGTG CGCCACCACA CCAGGCTAAT TTTTGTATTT TTAGTAGACA TGGGGTTTCA
43921  CCATGTTGGC CAAGCTTGTC TCAAACTCCT GACCTCAAAT GATCTACCTG CCTCAGCCAC
43981  CAAAGTGCTG GGATTACAGA AGTGAGCCAC CGTGCCCAGC CTTGGTCCTG AATTCTTACA
44041  CTGAACTGCC TATGTGGCCT CACCACTTGG AAGCCTGACT GGAATCTCAA ACTTAACATG
44101  TCCAAATGCA GATCCTTGAT TTACCCCAAA CTGCTCTTTC CTCTGCCTTC ACCATCTCAG
44161  AAATGGCATT GCCAATTACC CCACTGCTCA GGCCAATAAA ATTAAAATAA AGAACAAAGT
44221  CAACTTTAAC TCTTCTCTTT TTCAGGGGGT CAGGGGAGAC AGGGTCTTGC TCTGTCACCT
44281  AGGCTGAAGT ACAGTGGCAC AGTCATGGCT CACTGCAGCC TCAACTTCCT GGGCTCAAGC
44341  AATACCCTCC ACCTCAGCCT CCCGAGTAGC TAGGATCACA GGTGCATGCC ACCACACCCA
44401  GCTAATTTTT GTATTTTTTG TAGAGAAGGG GTTTTGCTGT GTTGCCCAGG CTGGTCTTGA
44461  ACTCCTGAGC TCAGGAATCT GCTCTCCTTG GCCTCCTCCT TGGCATGAGC TACTACACCC
44521  AGCCAATTCT TCTCTTTCTC TCACACAACA TAGAATCCTT CAGCAACTTC CTTCAGAATA
44581  TATTCAGGAG ACAATGGTTT GTCACTCCCT TTTCTGTTCC CACCCAGCCC ACTCCACTAC
44641  CTCTTGCCTG GACTGTGTAA CAGCTTCCTG GCTGGGCTCC CTGCTTTTAC TGTTGCTCCC
44701  TTCATTCTGC TTTCCACATA GCAGCCAGAG CAATCTTTTA AAAGCCTGTG ACAGATCACT
44761  GTTACTCCTT GGCTAGAATT CACACCACAG CCTACAGGCG CCTGCACAAC CTTGTTTGTG
44821  GCTCCTCTTC TGAGCCCATT ACCTACTTCT TGGCCTCTAC TCCCCAGCAC TACTTGTTTA
44881  TTTTTTTCAA CCCGAGCTTC TTAACCAGGA GTTTGTCTAC TAGGTGACAT GTGGCAAAGT
44941  TTAGAGACAT TTTTGGTTGT CAAGACTGGG GGAGTGCTCC TAGCACCTAG TGAGTAGGGA
45001  GGACAGGATA CTGCTAGACA TCCTACATGC AGATGGTAGT CCCCCTTCCC ACCCCCACGC
45061  CGCCCCCCCC CCCACACACA CACACATGAG TAGTGCTGAG AAAACCCGCT TTTTAATCCA
45121  ACTTGCCAGG CCCACTCAGT TTGCCTGGGA AATACTGCTC CCAGTCAATA TCATTCTTAT
45181  TTCCTTCATG TCTCTGCTCA AGTGTCAGCC CCAGAGTGAC TTGCCCTGAC TTCTCTGCTT
45241  CTCACAACAC CCATGATTTC CTGATGTTGT ATATCTTTCT GCTCATTTGC TTATTGTCAT
45301  CTCTCCCACT AGAATGCAAA ATATCAAAGG GTAAAGACTT GTTTCCCTGC TCTCTCCCTT
```

Figure 9 (Page 14 of 74)

```
45361  GGGGCTTGAA CAGTGCAACA CATGGCTGGG ACTCATTTAC ACTTGTAAAC AATGAATATT
45421  TCTGCTCAAC ATGAAATTTT ATTATTCAAC CTCTAATGCA GTGTGATGTT TAAGAATCAT
45481  AGCTATGAAG TGGAGACATG AGCTCTGCCA CCAAAGCCCC GTGTACCATT GAATAAATTT
45541  GCCAGGAAGC AGGCCGTGCC ATGCCTCATT CTTGTCATGT GTAAAATGTG GATACACGTA
45601  GTACCAAAAC TCAAAGTGCT GTGCTGAGGC CGGCGTGTGA CCCACAGAAC ACTGTGCTAC
45661  ACTACAGGGC AAAATCACTG TCAACTAAGA TTAGAAGCAG CTGTAGTACT TGAAATAACA
45721  TCAGAAAACC AGATTATTTA TGTTCTTTGT AACCTGAAAA GAGTTATATA ATCTGAATTC
45781  CAGTTAACTT CTAGTAAAAT AAACGTATTA TTAGCTCCTA CCTCCCTATG CCTAGTGAAA
45841  ATCAAATAAG ATCAGATATG AATGTAACTT AGAAGTGAGT GCATTGCTTA CATGTTCATT
45901  ATCAGTACTT TGTAGAGAGG CCTCTTAATT ACACAGCACA TTGCAAATCA ATAAAGCCTA
45961  GCCGAAAAGA GAATTGTTCA GTTCAAACGT TCAAAACTAA CATATACTTA ATTTTCCAGG
46021  CAAAAGAACA ATTGCCAAGA GTGGGGAAAG GCCCGAGGTA GGCCTCTCTC AGGAGCCTCC
46081  CACCCTAGAG ACCTCCACCC CAGGTCTCAC CAAAAGTGGG TGGAATGGTG AAGAATTCAG
46141  ATCCCCAACG CCACTCTTTC GCGCCCCCAC CGCCCAACGC ATTCGTTCTG AGGTGGAAAC
46201  CCCGTGCGGA TCCTGCTGTG GGTTTGCTCA GCCTTCTCGG CAAGCACTCA GGGAAGAACT
46261  TCCTGTTTGG AGATGACTGG GGAAAAAACT GCACAGCTGA CATTGGAAAT AAACCCGAGT
46321  TCCAGGTTCA AGGAGCCCCA GGCTTAGCTC AGCTCAAGTG AGGAACTACG AGATTTATTT
46381  AAAAGCATTC TAGTTGGGGG AAGGGAGTGG GCGGTTCCAA AAGTCACTCC GCAGAGCCGG
46441  GACAGCCGGG GGAGGGGGCA GGTCCTGGGG CGAGGGACCC CTATCTGCAG TTCAGTGGTA
46501  GGCACTCCCT CACGGGGTCT GGACGCAGAA AGTAGGGAGA GGGGCTTGCG GATTGGGTTG
46561  AGCAGGTCCT CCAAAGTTAG CAAACTCCCA AGCGCAAAGA AAAAGCTAGT TTCGATTTTT
46621  CCACCCCCGC CGCGCCCCTA GTTCGCCCGC AGCCCTCGGA CTCACGCAGC AAGCGCCCCT
46681  GCAGGACCGC GGTCTGCAAA AGCATCAGGA GGAGAAGCGC CGGCCTGGCT CGCGGGCCCA
46741  TTTCCCCAGC TCTGGCCGCA CGTCCCCGTT AAATCTCCGC TTCTTTTGGG GGGCGGGGAA
46801  ACGGGGATGG CTCCAGAAGT CACCCTACAG CTATTGCCTA GGCTCAGGAG ATGCCCAGTA
46861  AAACTTCCTG GTGAAAAGCA ACAGGTCTTT CAGAACTTTA GTTCTCTCTC TCCTACAGCA
46921  GAAGGTACCT GCTTGTGAAA CACTAGGTGA TCCAGTGTCC CCCTTGGTTT TTAAATCCTG
46981  AAGGGGTGTT GTTGATTGGG GAAAGTAGCT TCGCAATGTT CTGATCTGAA CTTTAGATAT
47041  TTAAATATTT ATGATTTTCA AAATTCAATC ATACATTTAA AAATTTTATC TCAACCTTAG
47101  ACCAACTTAT GTCTTATTTG ACTTAGAAAT ATAAAGCTTT TTCATTTTGT TTTTTGATTC
47161  AAATTAATTA AGTCATAACA TTAACCAATT AGATCCTACT GAAACACGTT CCACAGCCTT
47221  CATAATTGAA TTATCTGACA AGTGTTTCAC AAACTTTACA GTATTGGGAT TATCTGGAGA
47281  ATGATTAAAC ATATTGAGGC CTGCTCCTAA CCCCAGACAC ACTGATTTAA TGGGTAATTG
47341  TTAGGTAGTT AGACATTAGC AGTTGGGAGG GGATGACAGA AGAGAGCGGA AAGGCTGTCA
47401  CTAAGACAGC CACTGGCCCA CCTAAATTCA GGCCCAAGAC TACCCTAATG CCACCCTAAG
47461  GGATGGAGTT TATGATAAAG TCTGTGGCCA AAATATCCTG GAGAAAGAGA AAGGAGGGTA
47521  CAGGTGGAAA TTCCCTAAGG TGGCACATGC CCAACAACAC AAAAGCCTGT CTTCAAGTTC
47581  ACCCCAAGTT CATCATGCCA TCATTATAAT AGAATTTACA TACAGTTTTG CCCCCCCATC
47641  CCTGGGAGGC TTTTCTTAAC AAATTATAGG TAAGACCATG CACAGTTTAA TTTTAGATTG
47701  TATAGCTATA AACTTCAATC AAATAACATC ATCCTGTCAC TCAGATACAG CCCAAACCTC
47761  AACTCCTCCC CACAAACCCC ATAAAAGCAC CTTGAGCTCT GTAAAGAAGT GCTGAGTTCA
47821  CTTCGCAGAA ATAAGCCCGC TGTCCCTCAG AGTGTATTAT TGTGCTTCAA TAAACTTTGC
47881  TTTAAGCTTG CATTTTGGTG TTAGTTTGTA GTTCTTTGCT CACTATCACA AGAACTGAGA
47941  TTGCTGCTTC AGAGCTCCGG CTATAATAAT CTCCTCGGTT AAAGGATCCA TCCCAATGCA
48001  TAATTCCCAG TAACAGTATG GGATGCCACC TGGGCAATGG GATTTTAAAA GCTTTCCTTC
48061  TCCCTCAACG AAGTTTGGGA ATTATTGCCT TAGACATTTC AAACAATATT AATAAATTTA
48121  ATACACCTGA TTTGCTCCAA ACCTTTACAT ATCTAGCAAA TTCAACAGGC ATTATTTTTG
48181  TAAGCATGTA TGCAAATTTT GGCAATTCAA GAAAATCAAA CAGGATATCA GGGCCTCGAC
48241  TGTAGGCAAA CAGATACAAT AACATTGGAA ACATGTAGAA TATTGATGAT GGGCACATTG
48301  GGGCTGATAG TACTATTCCT TTTTTTCAAT TTTTGGTAAG ATATAATTAG CATACCATAT
48361  AATTCATCTA TGTAAAATGC AAAAATTGGC CCAGCTCAGT GGCTCACGCT TGTAATCCCA
48421  GCACTTTGGG CGGCCGAGGA AGGCAGATCA CCTGAGATCA GGGGTTCGAG ACCAGCCTGG
48481  CCAACATGGT GAAACCCCGT CTTTACTAAA AATACAAAAA TTAGCCGGGC GTGATAGCAG
48541  GCAACTGTAA TCCCAGCTAC ATTAGAGGCT GAGGCAGGAG AATCGCTTGA ACCCGGGAGG
```

Figure 9 (Page 15 of 74)

```
48601  CGGAGGTTGC AGTGAGCTAA GATCGTGCCA TCGCACTCCA GCATGGGAGA CAAGAGCAAG
48661  ACTTCATCTC AAAAAAAAAA AATTAGCTGG GTGTGGTGGC ATGCACCTGT AATTCCAGCT
48721  ACTCGGGAAG CTGAGACAGG AGAATCGCTT GAACCTGGGA GGCGGAGGTT GTGGTGAGCC
48781  GAGATCATGC CATTGCACTC CAGCCTGGGC AACAAGAGCG AAACTCCGTC TCAAAAATAA
48841  AATAAATAAA ATAAAATGCA AAAATTAATG GATTTTAGTA TATTTACAGA GATGTGCAAC
48901  CATTACCAAA ATTTTACATT TCTATCTCCC CAAAAAGAAA CCATGTTCCC CTAATTCAGT
48961  ACCCTTAATT CATCGCCTCC CAGATTCCTC CATTCTCCTC CTCCTCCCCT CCCAGCCCTA
49021  GACAATCTTT AATCTACTTT CTTTCTATTT GGAACATTTA GTATACATAG AGGCATATAA
49081  TATATTGCTT TGCCGTGACT GGCTTCTTTC ATTTAGCATA ATGTTTTTAT GTATGTTTTT
49141  CATGGACCAA TAATATCTAT TATAAGGACA TACCACAACA TATTTTATTT ATTCATTCAT
49201  CAGCCGATGG ACATTGGTTT GTTTCTACTT TATGGCTATT GGGAATAGTG CTGTTATAAA
49261  CATTTATGTA CAAGTTTTTT TGTAGACTTA TGTTTTGATT TCTTTTGGTT ATATATCTAG
49321  AAGTGGGTTT GCTGGGTCAT ATGGTAACAC TGTTTAACCT TTTGAGGAAT TGCCACATTC
49381  TTTTCCAAAG TAAGCATTTT ATCCTCCTAT CAGCAGTGTA TGAGAGTTCT GATTTCTCTC
49441  CATCTTTGCC TGGGTTTTTG AATCAGGGCC CCAGATAGAA CAAAAATGTG GTTATTCAGT
49501  TGTTCCACCA TCACTTGTTG AGAAGACTCT TTTTTCATTG AAGTGTTTTG GCACCCTTAT
49561  CAAAAATCAA TCTACCATAA ATGTGAGAGT TTATTTCTGG AGTCTCAATT TTATCCCATT
49621  ATGCTATAAT CTATAATCCT ATCTTTTTTT TTTTTTGACA GAGCCTCACT CTATTGCCCA
49681  GGTTGGAGTG CAGTGGCCCA ATCCCGGCCA CTGGCTCCTC CTCCCAGGTT CAAGCAATTC
49741  TCCTGCCTCA GCCTCCCAAG CAGCTGGGAT TACAGGTACC TGCCACCATG CCTGGTTAAT
49801  TTTTGTATTT TTAGTAGAGA CGGGGTTTCA CCATGTTGGT CAGGCTGGTC TGGAACTCCT
49861  GACCTCAGGT GATCTGCCCA CCTCAGCCTC CCAAAGTGCT GGGATTACAG GCATGAGCCA
49921  CCACACCCAG ACTATAATCC TATCTTTATG TCAGGACTAC ACTGTCTTGA TTACTATAGC
49981  TTTTTAGTAA ATTGAATTCA AGAAGTTTCT CAACTTCAAA TTTGATCTTT TTTTGGAAGA
50041  CTATATTAGC TATTCTCAGT CTGCTGAATT TCCCTAGGAA TTTTAGGATC TATTATCAAT
50101  GTCTATTCTA TTTTTGTATA TGTTTTAATA TTTTCATAAG AAACTTTTTT CATTTAAACT
50161  TTTTTTTTTA AGAAAAATAG TGAAAATCAG AATACTGGGG GTCAGGCGCA TTTAACAGGC
50221  AGAAGAAGAA TAAAAACTTG TCATATAAAC AAAAAAGAAA TGACCAATCA CATTGTGGAA
50281  GCCATGGAGT GGTTATAGGT GCCAAAGGCT GCAGAGAAAT GGTGTCAGAT ATACCTGAAA
50341  ATTGTCCATT GTATTTGGCC ATTAAGAGAC TTAGAAGACT TAAGCCATAG ATTGCTCAGT
50401  GAGACCCCGA GGGCAAATGG TCTGAAGGTG AATAGATCAT TTCACCTTTA AGAGAGCAGG
50461  TAGGAAGCTA TAAATCCAAG ATTAAAAAGT TGACTGAACT GTTAAAGAAG AAACTCTAAT
50521  CTTGAGCCAC CCTATCCTTG CTCCACCTTC TGCTGCAAGC AAACAGAAAT GCTGAAATTC
50581  AACACTCACA AAGGCTGGTA AGCTGGAAAT GACAAAAATT ACTCCTGGGA AAGTCAGATT
50641  TAGAATTAGG CCATATTTGT TGGGGTTCAG ATTTTCATGT ACACTTGGGA AAGGGTTTAG
50701  CTTATAGGCA CATGCATGAA GGGAACTGGT ATAGGGCTGT GTTCATAAGG TCAAGAGTTG
50761  AAGGCCAGGC ATGGAGGCTC TTGCCTGTAA TCCCAGCACT TTGGGAGGCC GAGGCAGGAG
50821  GATGGCTTGA GCCCAGGAAT TCAAGACCAG CCTGGGAAAC ATAGGGAGAT GCTGTCTTCA
50881  CAAAACAATT AAAAAATAAA ATTAGTCAGG TGTGGTGGCA CACACTTGTG GTCCCAGCCA
50941  CTCAGGAGGT TGGGAAGATC ACTTAAGCCT GGGACATTGA GGCTGTAGTC AGCCATGATA
51001  GTGCTACTGC ACACCAGTCT AGGTGACAGA ATGAGACCCT GTCTCCAAAA AAAGAGCTGT
51061  ATCCACATCC CAGGAAAGTG GTTGAAGATC TACTTTTCTC TGTAAACCTA ATAAAGAATA
51121  GAGTGACAAA TGTGTGTTGT GGAAAGAAAT GGGGTGAGAG CTACGTAGAT GCAAAACAAT
51181  ACATCCCCAC ATACCACTTG TTAATCATCC TTTTCCACCC ACTTATGGGA TGAATTGCAT
51241  CTCCCCAAAA GATACTCTGT CCTAACCCTC AGTACCTGTG AACCTGACCT TATCTGGAAT
51301  ACGGTGAGTT CACTGGTTAA GAAGAGATTA TAGTGGAATA GGGTGAGTCC TCCAACCAAT
51361  GACTGGGGTC CTCACAGACA CAGAGGGATG ATGGCCAGGT AGAGATGGAG GCAGAGATTG
51421  GAGTTATGCT GCCACAAACC AAACACAGGA AGCTGCTAGA AGTGGAAACA GGCAAGAAAG
51481  AATCCTTCCC CAGAGGCTAC AGAGGGATCT TGGCCCTGAT AATACCTTGA TCTCAACTGG
51541  CCTACGTAAC TGTGAGAGAA TAAATTTCTT TTGTTCTAAG CCACCCAGTT GATAGTACTT
51601  TGTTACGGCA GCCCTAAGGA ACTTGATATA CATTTCTTTT ACTGTCATAG AAGTTTTGAA
51661  TCTTTTAAGT AGGTCTGTAC CCTTCCTCCC AGTGTCAACG CATGGAATTC CTCTCCTTGT
51721  GCCTTGAAAA GTGAAAGGTG TTTGAACTGG TAATGAAAGA AATCTCAGCA TGAGGCCAGA
51781  TGCTGTACCT CACACCTGTA ATCTCAGCAC TTCGGGAGGA TGAGGCGGGC AGATCACTTG
```

Figure 9 (Page 16 of 74)

```
51841  AGGTCAGGAG TTCTAGACTA CTCTGGCCAA CATGGTGAAA CCCCATCTCT ACTAAAAACA
51901  AAAAATGTTA TCCTAGCCGG GCATGGTGCC TGTAGTCCCA GCTACTCAGG AGGCTGAGGC
51961  AGGAGAATTG CTTGAACCCG GGAGGTGGAG GTTGCAGTGA ACTGAGATCA CGCCACTGCA
52021  CTCTAGCCTT GGTGAGAGAG CAAGACTTGG TCTTAAAAAA GAGAAAAGAA AAATGAAATT
52081  TCAGCATTAT AGAATAAAAA TGTTTCCCCT TCCCCCCAAA CTTTAAAAAA GCAGAAGTCT
52141  GCATCATAAA ATGGTCTTTG CCAATGTTAT TTTTATTATA ACAAAGGAAT CTTGCAAGGC
52201  TACCAGATCT CAGCAATTGT CACTATGTTC TGTAAAAATC ACTTCCTAAA ATGTCTGAAT
52261  TGACTGCTTG TCTCATTTAT TTGTTTCTCG TGTCATACTG CAATGGATAT CTGTCTTGTT
52321  AGTATAAATA TTTGTGCATT TTGTTGTTGT TAAAACAGCT TTTTTGGCCT GTCTTCTTCC
52381  ACCTATGAGG TAATATAAAA CTCATGTTTA ACACTTATTT TTGTAGGAGG ACAAGCTACA
52441  GACAAAACCC CTCAGACACT GAGTTAAAGA AGGAAGGGCT TTATTCAGCT GGGAGCTTTG
52501  GCAAGACTCA CATCTCCAAA AACCGAGCTC CCTGAGTGAG CAATTCCTGT CCCTTTTAAG
52561  GGCTTGCAAC TCTAAGGGGG TCTGTGTGAG AGGGTCATGA TCGACTGAGC AAGTGGGGGT
52621  ATGTGACTGG CAGCTGCATG CACCAGTAAT CAGAACAGAA CAGGGATTTT CACAGTGTTT
52681  TTCCATACAA TGTCTGGAAT CTATAGATAA CATAACCGGT TAGGTCGGGG GTCAATCTTT
52741  AACCAGACCC AGGGTGCAAC ACCAGGCTGT CTGCCTGTGG ATTTCATTTC TGCCTTTTAG
52801  CTTTTACTTT TTCTTTCTTT GGAGGCAAAA ATTGGGCATA AGACAATATG AGGGGTGGTC
52861  GCCTCACTTA TTCACCCCCT TTGAGAATCT CACTCATTAG TGGGAGTTCT CACTTTTATT
52921  CTCACTACCT ATGTCTTCTT GAAAGACAGA TTGATAATGA TTCATATAGT ACACTTGTGC
52981  TGAAGCATTT TGGTGAGCTA AGGTAGTGAT GAAGCTTTTT ATCATTTGGA GAAGTACAGG
53041  TAGCAAACAA GGAAGCAGTA AGCAGGTTTC TATTAATATT ATAACTCCTA TTATAAGAGT
53101  TTTAAATCTT CTTAGCACTC GGAACCATTT TTCAAACATG GCCCCAGAAA CAAATCCATA
53161  CCACACCTAC ATGGGCACAT GTGCCACTTT TGTCATATTT CTAACTATGT CTTCAACTAC
53221  TTGCCCTTAA TCATCTATGT GTAGACAGCA ATTAGTAAGG TTAAATTTCC TACAGACCCC
53281  TCCTTCAGTT GCTAGCAAGT AGTCGAGAGC CAATCCATTT TGATAGATAG CATTTTGCAT
53341  CTGAGTTTCT TGCCAGGCCA CAGTAGTCAG GGCTCTGCTG GTCTTATTAG TAATTATTTC
53401  TAAGACAGCT TGTAACCGTA TGATTCAGTT GAGCATGTAA ATGGGGGTCC CATATCCCCA
53461  CAAGCCGTCT TGTGCCCAAG TAGCAGGCCC ATAATATTGT ATGATTCTCT CAGGGGGCCA
53521  TTCATTATTT TTCCAATTTT CTATAGCTAT GCTTTTTTTT TTTTTTTTTT TTTTTTTTTT
53581  TTGCGGGAAG CATATACAGG GAAGCCCAGG AGTTTGCCTG TCTTTATGGG CAGTAGGAAG
53641  AAAGATGGTT TAATAGTGTC AATAACACAA CTACCTGCCC ACTGGTCAGG TAATTTGGCA
53701  TAAGCTGTAT GCCCACATAT CCAGTATAAT CCAGTGGGGG CTGTCCAGTC CCGGTGGGAC
53761  TCTGGGTGGG TCCACACAGT TTGCAACTTT GGGAATTTAC TAAATAGATT TTTCTTAGTG
53821  TGGTTTGAAC TCCACTAGGT GGCTGTTTTT ATAGTACTAT TATACAGTTT TTGCCCAAGG
53881  CAGCTGAGTC TTCCCACAGG AAGGGTGAAG TCCTTCCCCA CTTTTGCTAT ACAGTATTGT
53941  CTAATGATTG AGGCTTTTAG GACCCAGAAG TTATCAGGGT GAGTCTTTTG AGCTGGGAAT
54001  TTATCAGGAA CTGGGTCTGT AGGTACTAAT TCTCGTGCTT CCCATGGCCA TTGATCTCCC
54061  ATTACAGTTC CTCCACATAC ATACATAACA TGAAGTGACA TTGAGAGACT GGGCTACATG
54121  CTCAGCTAAT TGCAAAAACA AATTTCTTGT TTTTCCTGGA ATTTCTAGTA CTGGCACATT
54181  CAGTTCATCA TAAGAAGGTT TGAAATACTG GCTCAGGGGA GCATTTATAA ACTTCTCCTC
54241  AAACCACCAT ATTTACTCAA GGATCCAGTC CAGCCCCAAC TATTTCTAAG GTTACACGAT
54301  CCCCTTTTTT CCAGTGAGAA TCAAGGGGGT TGGTTATTAC TAGTTCTAAG GGGTTACACT
54361  GACCACTGGT ACAGGAAGGG CCACTTTTCC CTTTCTGAAG GTGGACAGGA TTCTTTTTAT
54421  TTTTTAACCA AGTTGCCTAA ATGACACAAG ACCAGTATCT ACATTTATTT CCACGCAGTC
54481  TTAATTCATG ACAAGCGTAC TTATTTTCTG CCATATAGCC TCTTTCCTAA TGAACAGAAC
54541  CACATCCTAT TTCTAACTTA TTACTATTAA TGACAGCACA GGCATCAAAT TTCAAGGTGA
54601  CTTGTTTGGG CATTCCTTTT TCTTCTGTTT TGGCTAACAC TTTACTCGTA TCGTTTATGA
54661  ACCCCCACCA GTCCTCAGTC CTCAATCTTA TTTCAAAAAC TGTGGTCGTG GGAGGCTCAG
54721  ATGGGTCATA ACACACATCA GGTTGGTCAT TTCTTGGGCT ACCTGCCTTG TATAGAATAG
54781  CATTATACAA ACAAGTTATT TTTAGAGTCT TTGTACACTT ATAATAACCA TAAAATAATA
54841  AGACTGTAGC AACTTTTTGT CCTACCTCAG TGACTTGATG TATACACTGG GAACAGCCCT
54901  CAGTCTGAGG AAGGTTAGTT GAAGTCTTTA CTGTGCAAGT CCAAATTTTA AGGAAAATGA
54961  GTCCCTTGAT GAGTTTTCTC ATGTTTCGGC CATGCATGGA CCAGTCAGCT TCCGGGTGTG
55021  ACTGGAGCAG GGCTTGTTGT CTTCTTCAGT CACTTTGCAG GCGTTGGCGA AGCTGCCACG
```

Figure 9 (Page 17 of 74)

```
55081   TACAGCTCAC AGTCTACTGA TGTTCAAGGA TGGTCTTGGA AGTTGGGCCC ACTAGAATTA
55141   ACTGAGTCCA ATACCTCTAC TCAGTCACTT TCAACTGGGC TTTCTGATAC CAGGAGCAAG
55201   GTGGCAGGTT TTAGGGTGTT GCAAATTTCA ATGGTTATGC AGGGATTTTC ACATAGCAAA
55261   CTTTGGTACT TGGTTAATCT AGCATTTGTT AGCCAATGAT GTATTTATTA AAGTCACCAC
55321   AGCATGGAGG GCCTTTAAGT TTAGGTTTTG TCCAAGAGTT AGCTTATCTG CCTCTTGTGC
55381   TAGCAGGGCT GTTGCTGCCA AGGCTCTTAA GCATGGAGGC CAACCCTTAG AAACTCCATC
55441   TAGTTGTTTG GAGGCCCAGC CTCGGCCAGG GCCCCACAGT CTGGGTCAAA ACTCCAACCG
55501   CCATTTTTTC TCTTTCTGAC ACATAGAGTG TAAAGGGTTT TGTCAGGTCA GGTAGCCCCA
55561   GGGCTGGGGC CGACATGAGT TTTTCTTTTA ACTCATGAAA AACTCATTGC TGTTGGTTGT
55621   AATAGATGTA GTTTATCCAA TCTACATTTT TATTAACTGT CACCCACCAA AATATTGACT
55681   CAAATCCTGC AGCTATTTGA TTTTGGGATT TAAATTGATC TGCTATTCCC TGTGGGACTC
55741   CAATTGCATC TAAATAGATG TGAGAGTTGA AAGACACATA AGGGTCTTCT CTTGCTTTAC
55801   GATGTCTTAT TTTTCCTCCC TCTGGTTGAT GAAATGCTAG GGTGAAAGGG ATAGCCAACT
55861   GGACTAAAGT ACAAGTGCCG CTCCAGTTAT TTGGCAGAGT GCCCAGTAAA GGTCCACCAC
55921   AATACCACCA CACATCCGCT TGGGGATGAA CAAAGGCTGA CTGATTGAGA AGCTCCTGAA
55981   AATTCTTAAG CTCACTGCAT CCCTTCAGGT CTCCAAGGAA TGCTAAGTTT CCTCCCTGTC
56041   ATGAGAGACA AGAAGTGAAC TTAGTTTTGG GAGATGGAAG CTGGATGGCC CTCAGGGGTT
56101   GACCTGCAGG GTGCTGGACT TTGGGATATA GCAGAGAGAG CTTGGCACGA CTTATTACTC
56161   CAGGCTGTAG CATCCTGGAA AACAGTTACC ATGCAGCCCA TGCCTGGTCA ACAGGAGGAC
56221   CACCTTAGTG GAAAGGGGAT AATCTGGCCC TCTGGCCTGC CATGTGCACA AGCATAACAA
56281   TTGGTTTTGT TTAATGTGTG GACAGAATAT TTGATCCATT CCAACTGGGC ATTTGCATCT
56341   TGGTATCCTG CTTAATTATC AAAGTTTGTT TTAAGTCTTT AACTTCTATG ACCCTCTAGT
56401   AAAATGAATG TATGATTTTA GGAAATTACA AAAACCGGTT GGGGCAGTCC ATCCTCGCTC
56461   TTTAGTGGTC CACACAACAT TCGACCAACT ATGGCATAAA AGCTCTACAT CAGGGGGCAA
56521   GACTCCTCGT TGACACTGGG GTCTTTATTG AAATCTCTCT GGATTAAATG GTCTCAGTTT
56581   ACTAAGGCTC AGTCTGAGGA GAGTCAGGAG GGACAGAGGT ACTTTTCTGA AGTACAGAGA
56641   TGTCTTCGAC TTGGCAAGTC CCCACAGGGT ATAACAAGGC AAGCATTAAA TTCAATAGTT
56701   TGAGGCAAAA TTGACTTGGT TATGTTAATA ACTAGATGGT CAGAAATAGA GTGAGGGAAG
56761   AAGAAAGAGT AATAGAATAG ATGAAGGAGT TAAATTTTTC TTAGCTTTAG TTTGGTAGGG
56821   TTTTCCCCTG GGACTATGGC CCATGACTCT GGAGGGGGTG GCACTTTCTT GACTCGGGTG
56881   TGATGAGTCC ATCCCTTTTT CACCGTATGA ACAACAGTCT CGGTGGTTAG CAGCACAAGG
56941   TAGGGTCCTT CCTAGGCTGG CTCAAGTTTT CCTTCTTTCC ACCCTTTGAT GAGAACATGA
57001   TCTTCAGGCT GGTGCTGGTT TACAGAAAAT TCTAGGGGTG GTACATGTGC TAAAAGACTT
57061   TTAGTTTTGA GGGAAAGGAA AGTGGAAGAT AAACCAAGTA TATAACTTTT AAGAAGTTGA
57121   CCTTTTGTTT TAAATGTGGG GACATCAGCA GTGGACTTTA TAGTCCTTGG TGCCTTCTTA
57181   CTGAGAAATT TCCTTTAGCA CCTATTTTTA TTAGTTTTTA GACCAAAGAA AGTCAAATGC
57241   CATTTTATAT TTGACAACGC TTCTTGTATG TTTATACCAG ATAAGCTAGA TTTCACCTTT
57301   ATATTGGTGT GTTATTAATG TTAAACTTAG TTTTAATAAA ACTCTGTAGA CATATTTATT
57361   TGATTTTTAA TGTCTGACCA TAAGGTAAGA TTTTTATAGA CTTTTCTTTA ACCTTTTATA
57421   ATTTTTGTTA AAGAACAGGT TAGTGCTTTA AGAAAAACCC GTTGTGTTTT TATTTTAATG
57481   TTCAGTTCAC AGAAAAACTG TATGATACCC CTTAACTTTA GCCAATATGT TTAGACACAG
57541   AATTTTCTTT ACAATTAAGG TTTCAAAACT TGCTTAAACC TTCAAAACAA TTTTTGTAAC
57601   CTTTTAATGT AGGTAAAAAT CCACATTCTT ATGCATCCTC ATAATCCTTT TACCAAAGGT
57661   ATATTTTACT TTCCTTACAT ACCTTGCACA TAAACTGTTT ATTCAATAGT TTTACATTTA
57721   GAAGGAGGCC TAATTACTTT TAAATTATAC AACATTTCTT GCATAAATTT ATTTTTCTAA
57781   CACACATTTT TTTCATGACT TTCACAGACA ATTCTTCGAC ATGCCTCAAC TTTCTGACTT
57841   ATTGCAAACA TCCCTTTCTT TAAACAACTA GTTAATTTAT CTCAGGACAA GGATTTTCCA
57901   TACAACATTC TTTTTTATAT AAATTCTGCC TCCTCTTTAT TTCCTTTTTT TTTTTCCGAG
57961   GATGATAACC ATTCTTTTCC AAAGCGAACT TCTTTTATGT CTGTGGACTA GACTGTCTAA
58021   GGCCACAAGA TTAGAAGTTA CTATAATACA TGTTACACTG TTAACTTTTA GCAAACTTTA
58081   CTTTTGTTGA AAACCTTGTA AGTTTGGGAT TTCAATTATC CTTTGCTATT AATAAGACCT
58141   TATTTAGTCC AAATTAACTT AGAATTGGTA TAGATGGCTT TTTTTTTTTT TTTAATTACC
58201   TGGGAGGAAC CATCTATCCT CCTGTCCTGA AGGGAGTTCC TCCTAGGTCT GGTCAGAGCT
58261   TTGTATGGTA ATTAAGATTT AGATCCCCTG TTAGGAAACC TGCCGGGTTA AGAGAATTTT
```

Figure 9 (Page 18 of 74)

```
58321   CAGTGGTTAA TGTTAAATCA TCTTCTTTTT TCTTTTTTCC TTAGGATACT TCTGAACCGG
58381   TGAGGTGTGC TCACAATGAG GTTTCCTGTA AAAGTTATTT TTTTACTTTC TTCTGTTAGC
58441   AAAGCAGTTG CCGCTACAGA TTGAATGCAT TTGGGCCATC CGCGGGTTAC TGGGTTAAGG
58501   ATTTTTGATA GGAAGGCCTT AATGCTTTTG GAATATGCCC TGACAACAAA GTGCCAGTTC
58561   CTTCCCGGTG TTCAGCCACT GCGTTGATCC TCCACGAGGG CCTGCCACGT GCTGCTCTGG
58621   TGAGGCGTTC CACCGGGGCA ATTGCCTACC TGGGAGCGCT CTCCAGATCT GTGTCGCTCA
58681   AACTGGCTGG AGTTCCCCGT AGGGATGCTC CACAGGGCAG GCCTAAGTCG CCTAAGGGGC
58741   TGCCTTGACC GTCCGTTAAT CACCTCTGTC TCCAAAAACC AGCTCCCTGA GTGAGCAATT
58801   CCTGTCCCTT TTAAGGGCTT ACAACTCTAA GGGGGTCTGC ATGAGAGGGT CGTGATTGAT
58861   TGAGCAAGCA GGGGGTACGT GACTGGGGCT GCATGCATCA GTAATCAGAA CAGAACAGAA
58921   CAGCACAGGG ATTTTCACAA TGCTTTTCCA TACAATGTCT GGAATCTATA GATAACATAA
58981   CCTGTTAGGT CAAAGGTCGA TCTTTAACCA GACCCAGGGT GCGGTGCCGG GCTGTTTGCC
59041   TGTGGATTTC ATTTCTCCCT TTTAATTTTT ACTTTTTCTT TCTTTGGAGG CAGAAATTGG
59101   GCATAAGACA ATATGAGGGG TGGTCTCCTC CCTTAATTTA AACAAAATTT TCAAAGTCCT
59161   ACCCCAAGTA AATTGGCAAA TATTAATAAA GTTATGGCAT AGAAAATAAA AATGATTGTA
59221   AAAGGCGTAA AGATATTTCT GTGGGGAAAA CATTTGTTCA TTAGTTATCA GTTAAAATTC
59281   TGTGAAAAAT AACCACTAGA GACCCTAAAG TACCCAGGGG CTAATAATAA GAAGGGAGGA
59341   ACACCCTCTC AGTCCCCACC GTTACCTCCC CAGAAGGGAA GAGGAAGAGG GTGACTCCAG
59401   GAGAGCTGTG GTCTCCCCTC CCCATATGTC CACATATACC TGACCTCCCC TCCCCAAAAT
59461   ATATACCCAA TATCTCTCCC ATATATACAT ATTTATCTGA CCTCTCCACA TATGTATACC
59521   TAAACTTTCT CTATATATCC ACATATACCT AACCCTCTCA CACACATATA GCTGACCTCC
59581   AGTGGAGGAA AATGGGGAAG AGAGAAGAAG TTATCAAAGG ATAAATCTAG GTCATACTCA
59641   GAAATGTGAA AAACAAAAAC CACACACAGA AAAAAAAAAC ACACACAAAA AAGAAATTGA
59701   TAAATTTGTT TGTGTCAAAA TTAAGAATTC CGGTTCAATG AAGGATCCCA TGGATAAAGT
59761   TAAGACACTG CTGTAAGGAT GGTAGAGAAT TAAATGTCTG AATCAGACGA AAGGATGAGT
59821   AATTAGAATG CACAAGGCCA AGAAGAACAA AACAGAAACT CCACATAAAA AATGTATGAG
59881   GCCGGGCGCG GTGGCTCATG CCAGTAATCC CAGCGCTTTG GGAGGCCAGG GCGGGCCGAT
59941   CAGGAGTTTG AGACCAGGCT GGCCAACATT GTGAAACCCC ATCTCTACAA AAAATACAAA
60001   AAATTAGCCG GGCGTGGTGG TGGGTGCCTA TAATCCCAGC TACTTGGGAG GCTGAGGCAG
60061   GAGAATCACT TAAACTCAGG AGGCAGAGGT TGCAGTGAGC TGAGATCACA CCATTGCACT
60121   CCAGCCTGGG TGACAGTGTG AGACTCTGTC TCAAAAAAAA AAAAAAATTA TATATATATA
60181   TATATATATA TATATATATA TATATATATA TGAAATAAAT GAACAAGAAA TTTAGATACA
60241   GGAAAATCCA AAGCACTTGG TAATGAAAGA AAGGTAAAGT GATGTGTCCT TTTGCATTTA
60301   AAAGAGAGCA TTAACAAATT AGAGAGCTGA ATAATGCTCA GTATTGGTGT GGATATGGAG
60361   ACTCAGGAAT CCTCATACAC TGCTGATGGG AGTGCCCACT CCCTGGGAAT ATTTTCCAAA
60421   TATCATCTCA AACATATCCC ATAAAGGTGA CAGGAAAGTG TGGGCTGACT GATATCCTTC
60481   ACTGAGAGAG GTGGAGGTAA AATGAAGTCA CTGCACAATA TAGAGTTGGA AGCAATGGAT
60541   TAGATGTCCA CATAGTTACG TGGAAGAATC CGTAAGATAC ACACACACAC ACACACACAC
60601   ACCTTTGTGT ATATTGTTCC TGGCAGGTAG GCATGGAGGT TTAGAGGCTT TCTACATCAC
60661   ACCTACTGCA CACAGTAAAT GGCCAGGCTG AGCACTGACT TCCATGAAGG GAGATTGAAG
60721   GTAAGAGATT GAAGATTGTT CCCTGGTCTG GGACCCTGCA ACTGAATATG CAGAAAAAAG
60781   TACACCCCGC CACCCCGCTT CCCATCTTTC CTACCTGATT AGAATAGCTT TTTCAGAAAA
60841   CGTTGGCCAG GGGTTGTGGC TCACACCTGT AATCCCAGCA CTTTGGGAGG CTGAGGCGGG
60901   CAGATCATCT GAGGTCAGAA GTTCCAGACC AGCCTGGCCA ACATGGCGAA ACCCCATCTC
60961   TACTAAAAAT ATAAAAAATT AGCAGGGCAT GGTGGCACAC ACCTGTCATC CCAGCTACTC
61021   GGGAGCCTGA GGCAGGAGAC TCACTTGAAG CACAGTGATG GAGGTTGAAG TTAGCTGAGA
61081   TCTTGCCACT GCACTCCAGC CTGGACAACA GAGTGACACT TTGTCTCAAC AACAACAACA
61141   AAACCCACCA AAACTTTAAA TCTACCTATG GCCAAATGCC TGCTAAAATG AGCACCCAAG
61201   AAGCAGTGTT CAGGAAAGTC AGATGAATAC CCTAAAATTA GATGCAATGT TGGCTGGTCA
61261   CAGTGGCTCA GGCCCTGTAA TCCCAATCCT TCTTGGGAGG CCGAGGCGAC AGATCGCTTA
61321   AGCTCAGGAG ATCGAGACCA GTCTGGACAA CATGGTGAGA CCGTGTCTCT ACAAAAACGT
61381   ACAAAAATGA GCTGGGAGTG GTGGCGCACA CCTGTAGTCC CAGCTACTCA GGAAGCTGAG
61441   GTGGGAGGAT CTCTTGAACC CAGAAGGCGG AGACTGCAGT GAGCAGAGAT CATGCCACTA
61501   CACCCCAGCC TGGATGATAG AGCCAGACCC CCATCTCCAG AAAAAAAAAT AAAGAGAGAG
```

Figure 9 (Page 19 of 74)

```
61561  AGAGATGCAA TATTTAGGGT TCAACAAGAC TGAACTTCTG ACTCCTTTCC CTACCTCTCC
61621  AGCATGTTAG ATTCTGGGTC CTTCATCCTA ACCCCCTGTT CATGCCATAG CCACCCTGTG
61681  GTACCAACTT TGGAAGCCTG GATCTTCATC CCCTCATGAT AATGAGTGTC CCATTCAGGT
61741  CTCCATGCTC AGCTTGGCAA GAGTATCTGT CTTCTCCTCA TGGGACGGTC ACATTCACCC
61801  AGCACTGACA GGTTCCATTC CCACTAGGGT GGCACCCTAT ATGGTCTGAG TCCAGGCCTT
61861  CCTGGTCCCT CAGTAATCTC AGCATGGTAG CACAATCGAA AAGGGCTAGG CACGGCAGCA
61921  CCATTTCCCA CCAAGAGGTC TGATGGCTCA TCACATAGAC TGAAGGAGAT TCTGAAGAGC
61981  AGAGGTGGAA TGAAGAATGA ATCCTGGGCT CTGCTCTTCC TAGGCCTGTC TTCCTCTCTC
62041  CCGAGATGTT AGCTAACTCA TGAGAGCCAG AAACCAACTG CAGGCTGGCC TCAGGCACTT
62101  AGGTAGTGCT TCAGCCTCAG CAGTCCACAT TCTAGGAACC CTCATAATAT GGGTTGAAGT
62161  ATGCATTCCC ACAAAAATAA AGTTGTTGAA GTCCTAACCA CCAGTACTGA AATGGGAAAA
62221  GTTCCCTTGT CCCGCTCGCA TGGCATGTGA TAGGAGTGTG GCTAATTTCT TCAGTGCCTG
62281  GCTGCTCAAA CCTCTAGGGG AACAGTAAGA CGGGCAGGTT GTGGGTCTCC AACCCCATGA
62341  CCCCACCACA GTGTCTAGGG TTGAATGTTT ACAGCTCCTG AAGCCACAGT GGGTGTGTGT
62401  TACAGGGTGC TCTTTTAGTT TTGCCATTTA TAGGCAGCTG GTGTTAACCA ACTCAATTAG
62461  ACCGTCTACC TTGTCCCAAG GACAGAAGAA GGCTTTCTGT ATCCCAGGTT CTTGCCTTGG
62521  TGTACCGGAA TAAATCAGAC CACACCTGGG CTTAGAGAAA GAGTGCAAGG TTTTATTAAG
62581  TGGAGGTAGC TCTCAGCAGT TGGGCAAAGC CAAAAGTGGA TGGAGTGGGA AAGTTTTCCC
62641  TTGGAGTCAG CCACTCAGTG GCCCAGGCTC TCCTGCAACC ACCCCAGTCA AATTCCGCCT
62701  CATTTTGCCA GGCAAACGTT TGTTGTGTGC TCTTCTGCCA GTGTGCTCCC CTGGACGTCC
62761  AGCTATTCGT GTCTTGTGGC AGGCCAGGGG AGGTCTTGGG AAATGCAACA TTTGGGCAGG
62821  AAAACAAAAA TGCCTGTCCT CACCGTGGTC CCTGGGCACA GGCCTGGGGG TGGAGCCCTA
62881  GCCGGGGACC ACGCCCTTCC CTTCCCCACT TCCATATCAT TTAAAGGGAC CATGCCCTTC
62941  CCTTCCCAGC ACTTTCCCCC TCCTGTATCA GGACCTGTGA ATGTGGCCTT ATTTGGAAAT
63001  AGGGTCTTTG CACTTCATCA GTTAAGATAA GAGTGGGCTC TAACCCAACA TAAAGGGTGT
63061  CCTTATAAAA AGGAGAAATG TCATACACAG AGACTGACAC CTATAGAGAG AAAATGTGGT
63121  GAGTAGACAC AGGGAGAATC ACCATTCAAG TCAAGCAATG AGTCTGGGGA TACCAGAAGC
63181  TGGGAGAGAA ACCTGGAACA GATTATCCCT CATTGCCTTC AGAAGGAATC AAACCTGATG
63241  ATACTTTGAT TTCAGACTTC CAGCTTCCAG GACTGTGTGA CGATAAATAT CTGTTGTTAA
63301  GCCAACAAGT TTGAGGTACT TTGTTACTGC AGCCCCAGAA AACTAATACA GTAGGTACTA
63361  TGGACTGAAT TGTGACTCCC CGTCGCAAAA TTCATATGTT GAAACCCTAA CCCCCAGTGT
63421  GATGGTACTT GGAGCTGGGG CGTTTGGGAA GTCATTATAT TTAGACAAAC TCATCAGGAT
63481  GTGTCTCTCA TGATGAAATT CATGCCCTTA TTAAAAGAGA CAACAGGCCA GGTGCAGTGG
63541  CTCATGCCTG TAATCCCAGC ACTTTGGGAG GCTGAGGTGG ATGGATCACC TGAGGTTGGG
63601  AGTTTGAGAC CAGCCTGGCC AACATGGTAA AACCCCATGT CTACTAAAAA TACAAAAATT
63661  GGCCAGGTGT GGTGGTGCAC GCTTGTACTC CCAGCTACTT GGGAGGCTGA GGCAGGAGAA
63721  TCCCTTGAAC CCAGGAGGTG GAAGTTGCAG TGAGATCACA CCACTGTACT CTAGCCTGGG
63781  TGATAGAGAC TCCATCTCAA AAAAAAAAAA AAAAAAAGAC AATAGAGCCA GGTGCTGCAG
63841  CTGATGCCTG TAATTCCAAC ACTATGAGAG GCTGAAGCAG GAGGCTCGCT TTAGCCCAGG
63901  AGTTCAAGAC CAGCTTGGAC AAAATAGTGA GACCCCCAAC TTCTAAAAAT TTAAAAAATG
63961  AACTGGGTGT GGTGGTACAC ATCTGAGGCT CCAGCTACTC TGGAGGCTGA GGTGGGAGGA
64021  TTGCTTGAGC CCAGGAGGAG GCTGCAGTGA GCCATTGCTG TCCAGCCTGG GCTACACGAG
64081  AACCTGTCTC GGGAAAAGGA GAAAACAGTG AGACCTCTTT TTCTCTCCTC CTTCTCTCCA
64141  CTGCCTAAGC CCTACAAGCA CAAAAAGGAC ACCACATGAG CACATAGTGA GAATGCTGCT
64201  GCCACCAACA AGTCAGGAAG AGAGCGTTCA CCTAGAAACT GAATTGGCCA GCACCTGGAT
64261  CTTGGACTTC TGAGCTTCCA GAACTGTGAG AAAGTTATTT TTTTTTAGC GACTAAGTCT
64321  ATAGTATTTT ATTACAGCAG CTCAAGGTAA CTAACATAGT AGAAGGGATG AATTATGGAG
64381  ATCACAAGTC CACGCCTCCA GAAAAAGACT TCCCTAAAAA TTAGTCTGAG CAAAATTCGA
64441  ATGATGAATT ATTTTTAAGA ACTTTTAAGG GATCTGACAA GTTTGCAAGA GCTAGAGAAT
64501  GCTTTACAAC GTGATAATAG AATGCTCTGT GATGACAGAA ATCTTTCCAC ACTGTTCAAA
64561  ACTAGCTACT GGCCACTTGT GACTATTGTG CACTTGAAAT GTGACTGGTG TCTGAGGAGC
64621  AGAATGTTTA ATTTTACTTA ATTTTAATTC ATTACAATAG CTACATGTAG CTAGGGGCTA
64681  CTGGATTGAA CAGCACAGCT CGAGTCTTTT AGAGGGAGAC AGGACTCACC AAGGTGGATG
64741  CTGGTGGCCA AGCAGCAATG GCAGGTAGTA CACACACAAG AGGCAGATGA TACAACACAT
```

Figure 9 (Page 20 of 74)

64801 CCTTCCCAAA CCTGGAGATA AGCTCACCCC ACAATCCCGC CGCTGAAATA GAGTTGATGT
64861 TACCAATGTG CATTTTTATG TCCTTTTCCA TACAGAAAGA TCATTCAACA AGTACTATGG
64921 TACTTAAAAA ACAACATTCA ATTCATTATT ATGACAAAAT TAAATTAATA GCTCTTCCTT
64981 AAACTTTTAA ATTCAATTTA CAATGCTTAC TATTGGCATT TATTAATCTA CCAATTTTTT
65041 CCCATAGAAC CCATAGAACA AATAATCTAC CAAATTTTTA ACATTCATTT TTGGCAAGGC
65101 TTTTGCAATT TGACGAACTT TAAGAAGAAA ACTTATAAAT TGCAATTTTT AAATCTGACA
65161 TACTGGACTT TTAAAGTATC CAATTGACTA ATGAACAAAA CTGCTCCAAA TTTTTCAATT
65221 CTTAAAAATC TTAAGACAAT ACTTAATATG GCAAATCTTA ACTTCTTAAA CTTTGTAAGA
65281 ATGCTAATCA ACTTAGATTG GTATAAAGTT GAGTTAAAAA TCACAGGATA CATCATCTCA
65341 GCTATAAGTT TTCATGAGTT GAGTTTTTAC AATCACTTGA AATGCTTAGA ATAGGAAATA
65401 CGTATAAATT ATTTAACATA AAATATTGTT ACAAAACCTC TGGAGTGTCA GTTTCTCTGG
65461 CCAGACTTTA TGCTGCAGCA CCTTTGCCTG AGTTCTTGTC CTGCATCCAG GAAGAATTAG
65521 GTACAGAGGC AAGAGTCAAG AAGATTAGTT TTCCAATAGT TCAGCTCACC TAGTTAACTC
65581 CTGTTCACAA TCTTCAAAGT TATCAGAAAC CTGCAATTGA GGGTTATAAT CCATTCTTTG
65641 CAGAGTTTCA AAACAAGACA ACATTTGTCT ATGAATGTTA AAATGTCCTA GGGTAGTCAC
65701 AGTCAAAAAC ACAATTGACA AAGAAATTTA GTCACCTCTG TGATTTACAA TAGCCTAACA
65761 CAATAACTCT AATTATAACT GATGACACAA ACTCAGATAT CAGAACTCTA GAAATCCCCT
65821 ATAATTTTGG AACACATATT CACAGTTTTC ACTGAAATAT GACCTGAAGA TCAAATATCA
65881 CCTTATTTCA ACAATCCTAT ATAACTAAAC GTGTCAAATG ATCCTGTTTA CCTCTCCTTT
65941 GGATACTCCA GGGGCCCTCT GTAGCATCCA AAAGTTAGGG GTTAGCAAAG ACAATTTTGA
66001 AGCTGTAAAG GCTCAAAACA CTTAATGAAC CTCTAGTCAT ATCTGTTCTC TACTCACTAA
66061 ATGCTAGTAG CACCTCTCAG TTGTGGCTAA GCTGGGAGGA TCTCTTGAGC CTAGAAGTTT
66121 GGGGACGCAG TGAGCTATGA TTATGCCACT GCACTCCAGC CTGGGCAACA ATGCAAAATC
66181 CTGTCTCAAA AACAAAAACA AAAAACAAAT TGCCTATGCT GTGGTTATCT CACAATTAAT
66241 AAAAAGGAAA AAAAAAGTAT GCAGTCTTTG TAGGTCCTTG GGGTTTGTTG GAACTCAGAA
66301 AACAATACCC CAAAATAAAG ACCGCAGAAG CCAAAGTTTT TCTCTGATCT TCTCCTGCCC
66361 TCCTGTCTCT GAGTCCCATT CTCCCCGGAG TCTAGCCATA GAAATGAGAA TTCCTCTTCC
66421 TCAAGTTAGG TCATAGAAAT CAAAACACCT TTTCCCCAGA GCCCAGCCAT AAAACCTAAA
66481 AATATTACTC TAACTTTCCC TCTGTTTTTC TGTGTAAAAA CTGGCCATAA AGAAATTATC
66541 TGAACTACCT TATTTGATCA TAGATCACCA GACCGCATTC CAGAGAGGAT CCAGAAGGAA
66601 GGAATGCTGC ACAGAGAGGC CAAGAAGAAT CTAGACAGAC AGGCCTTGCT GGGTTTCCCT
66661 ACTCTGTTTA TTAGCAATCC TATTTCTACA CGGCGGCCCA TACTTTGTTG AATCTAAAAA
66721 ATAAAAATGG ACAATTTCCC CTGTACATGT TAATACACAT TAATAAATTG GATATAAATT
66781 GGATAATTTA TTAATATACA CATTAATAAA TTGGATGCAG CCGGGTGCAA TGGCTCACGC
66841 CTGTAATCCC AGCACTTTGG GAGCTGAGGC GGGCAGACCA CGAGGTCAAG ACCACCCTAG
66901 CCGAAATGGT GAAACCCCGT CTCTATTAAA AATACAAAAG TTAGCTGGGC GTGGTGGCAC
66961 ATGCCTGTAG TCCCAGCTAC TGGGGAGGCT GAGGCAGGAG AATTGCTTGA ACTCGGGAGG
67021 CGGAGGTTGC AGTGAGCCGA GATTGCGCCA CTGCACTCCA GCCTGGTGAC AGAGTGAGAC
67081 TCCGTCTAAA AATAATAATA ATAATAATAA TAATAATAAT AATAATAATA ATAAATTGGA
67141 TGCATTTTAT CCTATTAATC TTCCTCTTGT CGGTGGTTTT CAGCGACTCT TCAGAGGCCA
67201 AAGAGTAAGT TTTCCCTTAG CCCCTACAGG TTCTTATGTT TAATTTGTTA CTCTCATTTA
67261 AGACATAATT AAAGTGGCTT CTCCATGAAG ATTATTTCTG CATCCATTAT TTGGTAAGAT
67321 TGGCCGTTTT CTCCTTTGAT CTCTACTTCA CACTGACCCA CATAAAACAT CACTGCCTGT
67381 TTTTTTGTTG TTGTTGTTTG GAGACGGAGT CTTGCTCTGT TGCCCAGGCT GGAGTGCAGT
67441 GGTGTGATCT CCGCTCACTG CAAGCTCCGC CTCCCGGATT CACGCCATTC TCCTGCCTCA
67501 GCCTCCTGAG CAGCTGGGAC TACAGGCACC CACCACCAAG CCCGGCTAAT TTTTGTATTT
67561 TTAGTAGATA CGGGGTTTCA CTTTGTTAAC CAGGATGGTC TCGATCTCCT GACCTCGTGA
67621 TCGGCCCGCC TCAGCCTCCC AAAGTGCTGG GATTACAGGA GTGAGCCACT GCGCCCGGCC
67681 CCGTTTTTTT TTTTTTGGTT TTTGCATGTC TTCTCCCTTT TACTGTAAAC TATTTCCACT
67741 ACCAGCGTAG TTATCATTTC TACTGCTTAA TAATTGTTTT GGGGAAGTGA ATGCATCAAC
67801 CCACATGAAT TTCTTGTCTA TTTGACAATT TATTCTCTTT AGGAATAGTA TTAACTCCTA
67861 AGGTCCTGGG AGCCAGTCTC TGTACTTGGC TGCTCCAGGG TCCTACTTCA GTTTCCCAGC
67921 TTCTCAGTAC TGTCACTGTC AATTGTGGGT AATAATTATT TTTGTCCACC AAAAGACTCT
67981 GTATGTGAAT GAGTTTTGAA ATCTGCTGAG TAATACAGTG TCAACCCAGT TAATGATTTG

Figure 9 (Page 21 of 74)

```
68041   CCGGGCGGCT TGATCAGGGG CTGTCCAACT ACCGGCATTT TGATTTGGAG CGTCATCTAG
68101   TGTCTGAAAG CACAAACAAC ATCCTACATT GTAAATGCCT TTGGCTACAG AGATTGAAAC
68161   CAAAGCAAAC CTATGTTTTG AATTGTTATT CTTCAGCAGT TCTGCTAGCC TTGAAAAATC
68221   TAAAAGTTAA AAAAAAGCTT TATATTTCAT TTTCTGCCTA AACTCTTTAA AATTGCTAGT
68281   TGACAATTAG ATATTTTCAA TTTAATGAAA TTTTTTTTTA GTTCACAGAT TAATACACAA
68341   TGGGGGAGGG TTCTTATTCT GTTGGACTTT TACATAACCT CCACTTTAGT GCAGTCTGCT
68401   TTATGGGGTC TTGTTTGAGG TGTGTGTGTG TTTAAGGGAA TGTGGTTTAC AATCAAAATA
68461   TTGGGTTGCT CTTAGGCACA TTGTAAAGTC ACACACCTGT ATTCTTATTG ATACATAATG
68521   ATTAATAACA TTATTATTAC AGCCTGATCA CCATCATTAT TGATATATCT AAATAATGAA
68581   TTTTATAATT TTGCTTCCTG TCAGGCAAGA GCCAATTTCA GTGCTACCAT GTTTGTATAG
68641   CAGTATTTAT GTCTGTCATC CTCAGTCATT TTACTTCACT TGTTCTTAGC CAAACGGCCG
68701   AGAAGCGATG GTCATTTTAC TTCAAAAATG AAAAGAATTA ATATTTTTAC GTTTCCCTTA
68761   AAGACCCTAT GTTTAACCTC CACTCCCGGG TAAAATGGTC TAGTCCCTCC TTTTCATATC
68821   ATCTCTGATA TCTTTTGCAC AGCCACTATT ACCTACCGTT TTCTAGATCC CTATTCTTCA
68881   AACACCACCA TGAAGGTAGA GCCTGTCTGA ATTATTTTCT TGTCCCGTGA ACTCAGTACA
68941   TTGTTAGGCT TCTTGAAGAT GTTGATCAGT TGTTTGTGGA GTGAATGAAT CAGCTAGCAT
69001   GATTTTTCTA GACCACTGAG ACAAGTGTCT AAGACACTTG TTCCTTCCCA TGTTCTTGCC
69061   TGCCTGTGCA ATCCATGCAG TCTCATGGCT TCCCAGTGCC TCAGAATTAT CCCCTGTCAA
69121   ACAGGCATTA TAATTTCTGT CCACTGAAAA GGACAAAAAA CTAAGTGTAT AGCTAGAAGT
69181   TAAAAATTAC CGGCCAGGTA CTGTGGCTCA CTCCTGTTAT TCCAACATTT TGGGAGGCTG
69241   AGGCGGGCAG ATCACCTGAG GTCAGGAATT CGATACCAGG CTGGCTAACA TGGCGACCCC
69301   GTCTCTATCA AAAATGTAAA AGTTAGCCAG GTGTGGTGGC TCGCACCTGT GGCCCCAGCT
69361   ACTCAGGAGG CTGAGGCAGG AGGATCGTTT GAGCCCTGGA GGTTGAGGCT GCAGAAAAAT
69421   AGGAATATAC TCTCTTTCAA GAGTTCGTGG TTTTGACTGC CACCTAGCGT ACATCAGAAA
69481   AACCGCATGA CATAGGAAAT GCCTGTGACA GAGGGGTAAG GTGAGAGAGG TTGATGAAGA
69541   ATGTATTGAA GGAGTGAAAA CGCTTCCATC CCTCTACTTA CTAAATATAT TAGTTAAGTA
69601   GTTGGGGCAT ATTTTAATTC ATGCATTTTG TAGATAGAAA AACAAAAGTT TTATTCTGTT
69661   TGATTTAGTT GATACTTTAA TATGTGTGTG TTTAGGATGC ATGATTTATA ATCAGTCTGC
69721   AGCACTTCTT GGAGAAGTCT GAATTCTCAT TCTCCATTTC CTTATTGGCA ACGTGAGAAT
69781   GATTACAATG GTGGTTGTCT CATAGAATGC AGGGAGTCAG AATGAAAATA GTCCATATAA
69841   TGCCTGGTGC AGAGGAAGGG TTCAGTTAAC TGTCTGTATT AATATTACTG ATAACAGTCA
69901   TGACAAACAA AAGCTTAACA ACAACACCAC CAACAACAGT TGCAGAATTG AGCCACCAAT
69961   TTGCACACAA GATTGTAGGT AGGATGTTTT AGAAAAGTTA TTATTTAATA TATGTATATA
70021   TTTTTGTACT TAAAATATGT CAGAGGTTGT TCTAAGAACT ATTTAAATGT TAACTCCTTA
70081   ATCCTCATAA TGACCCATGA AACAGGTAGG CTTATTATTG TCTCTTTACA TGTGAGAACA
70141   CTGAGACACG AAAAGGTTTA TTAACTCACC CAAAGTCACA CAGCTGGTAA AACGGCAAAA
70201   TTGAATTTGA ACTCAGACAT TCCAGGTTCC AAGACAGTCT AATTATTCTT TTGACTAATA
70261   TACTAAGCTG CCTCTGTATT TTTCCTTGAT TACTTTGTAA AAGTATGAGG AAAATATAAG
70321   TGCTTCAAGT AACCATGAAA AATATAAACA ATCTATGTAT CAACTGAAGC ATAATTACAA
70381   ATCCTTTGAT AAGCAAACAT AATAAAAATT TGATATCAAT CAAAACTTTC ATGTAATGTA
70441   AGCAGGTTGA GATGAATTCT ATAGTAAAAA AGTGCAGAGT GCTGGAATAC CATGCTCCTA
70501   ATATATTGGC TAGGCACACC TGCCTGCTAT CAAAGGTATG CACACACCTT GGATACAGAA
70561   AGTTGGGACT GGGTAGTTAT GTGAGTGTCA TCAGAATTCT TTCCCACTTG GGAAAGAATT
70621   GTCCATCATA AGCTTGGATG ATGGACAAGG AGTGAGCTCC CAGAACAGTG ATGTGGGGAT
70681   ACATCCTCAC ATCACAGTGA GAATGAGTGT TCTAGACTGT TTACACACCT ACCACTCCTA
70741   AATGCACACA TATAATTGCT TGCACACACA CACATACACA CTCATCTCTT CTCTGGTGGT
70801   CCAGCTCTAT CTCTTATCAT TAGGCTTCTT GGGGCTAGTA CCTAGGGCCT GTATCCTTTC
70861   AGAGGCAGCT AAGGGAAGCA CACATAATTA GAAAGAATGA ACCAGCTTGT TGGATTTGGT
70921   CTCTTCGCAT CCAGCCCTCC AAGTTAAGGA GAGTACCATC TTTCTTAGGG TCACCAAAGG
70981   AAAAAAAAAA AAAAGAAAGA AACAGAAGGA TATCATACAG CAAGGATCTA ATGCAAATAT
71041   GCCTCAAATG AGAGGCTACT GTGTGCTGAT CCCAATCCCA GGAACTGTAT GCACATTATC
71101   TAATTTAATC CTCACTGTAT TTCTGGGAGT ATTATTCCCA TTTTACAGAG AAGGAACTTG
71161   GCAGGGTAAC CAAGCTCATG AATGGAGAAA CTGGGATTAA ATATAAAGCT TCCTTGCTCC
71221   AGAACTGCTG TCTTTCTGCT CTTCCACACT ACCAGCTCAG CTGTGCTCTC TACATGCAGG
```

Figure 9 (Page 22 of 74)

```
71281   CAGTTTTACA AGTTTCAGAT TAGCCTGGGA CTTCCAGGGT TTTGAATGGG TTAGGGAATG
71341   GGGAACTTTT GGGTTTACTT TCCATTTTTT CTTCATACAT ATGTAATATA TAACATAAAT
71401   CTATGGTATA TATGATAAAT ATATGGCTAC ATATGAACTA TATAATCACA TATATGCATT
71461   ATAAATAAAT ATTAATTTTA TAATATTTTA AAGGTTATCA AATAAATATT AATATAAATA
71521   ATTAAATAAT TAATACTCAG CTTTGTTTTC CAAAGTGATA AATGCCTATA TTTAGCAAAA
71581   TATTTTTTGG AGGCCTGATA GTTTTTAGGA GTGTAAAGAA GTCCTGATAT CTAAATGTTT
71641   AAGAACCACT ATTTTAGGCT GTTGTCTTCT GTCTTATTTT CCCAGCTAGA CTGGTAAATA
71701   CTTGAAGGCA AACGTTTAGC CAGCACATTA ACATTTTATG TTTTTATTCT TTTGTGCTCT
71761   CAGTGGCTGT GTCTTTTCTA TCGATTTCTC ACACTGTATG ATGGTTATAT TTGTCTGTAT
71821   CTGTCCCACC AGGTATAAGT TCTTGAGAGG ACACACTGCT AGGCTGATCT TAGTTTTTAT
71881   TATTTCTCCT GGTGTCCTGT GCTTAACAAG TGCTCATTAA GTGTGTAAAA ACACAGCACA
71941   GTAAAAAACT AGACATTAAA AAATAATGTC AACCAATCTA TTGAAATTTG CATTTCCATG
72001   TTTCTTCCAA TATAGTCATT GTGTCAGGTT ATGTACTTAT TCTGATGAAG ACTATTGCCT
72061   AATATACGTT TGCATCTTGT GCTTTATAAC TGCCTTCATA TAGACACAGA TTGAGAAGGT
72121   GTAAAAATGT GCATATCCTC ACAATTGACA AATTCTTATC CTTTGAGGGT AGGTTTGACT
72181   TTCTGAAATG CTTTGACATC ATTTGAAAGA AGCTTGAAGA ATAAGATAGC TGTTAATGAC
72241   CCAGTTTCCT ATGTCACTTA TACAATTATA ATGGCAATTT CAAAATGTTA GGTAAATATA
72301   TTTTGCAATA TATTGTTCCT TTTGTAATAC TCTCTATGTA TTTATTTATA TTTTTAAATT
72361   TTATATTTAT GTATTTATTT TTCTGGACAG AGTCTTGCTC TGTTGCCCAG GTTAGAGTGA
72421   AGTGTTGTGA TCATAGCTCT CTGCAACTTC AAACTGCTGG GCAAAAGTGA TCCTCCTGCC
72481   TCAGCCTCAT GAGTAGAGTA GCGGGAACTA CAGGCGCATG CCACTGCACC CAGCTAATCA
72541   CTATTTATTA TGCTCCTACT GTGTGCTTTA GTATATTTTC TGTTGTTTTC TGCAACCCAT
72601   TTTGAGGGCG TGTTAGGGAA TACAGATGCA GTAACTTTGG TCTCAGCCCT TGAGGTGAGG
72661   AAATATTTAG CCTCAGGTTT AATCTAATTG TTGGCCATTT GCCTTCAAAG ATTGAAATAT
72721   GAGCAAAACT GTGGCTCTGG GTTATATGTT AAAAAAAAGT TTATGGGGCT GAAGCCAGGC
72781   AACAGACAAG AGCCCCTACA ATCTTATTTA GGCTGAAAAT ATCCTGGAGT CCCTGTATTG
72841   TTGGTCTCAA GCAGATAGCA ACACTAACAC TTACTCTTTG AGGCAGGCAC TGCCAGTGGG
72901   GTGGCTGTTA TTATTAGCTT CATTAATTGG TGAGTCAGGA AAAAACAGCT TTAAATCATT
72961   CAAAGTTCTG GCCTATACAG GATTTAGTAA TATTAGGTTA GCTACATCCA AAAGATGACA
73021   GAACCCTACT CTAAGGCTGG GCTTGGTGGT TCACACCTAT AATCTCAAAA CTTTGGGAGG
73081   CTGAGGCAGG AGGATCACTT GGTGCCAAGA GTTTGAGACC AGCCTGAGCA ACATAGTGAG
73141   ACCCCTGTCT CTATCAAAAA CAAAGAACTC TAATTGGCAT AGTAGAAGGA AAAAGTGAAA
73201   GAAAAACCAG CTGTCACCCT CATTCCTTAC ACCTGTCCTA ACAACTCCTC TCACTATCCT
73261   TTGAATATAT CTTGGCTGTT TGAGTCTCTC TCTAGCCCCA TTACTGCTGT TTGGACTTGA
73321   CATTTTGCTC TGCATTTTTA ACTTTTCTAC CAGGGTTTCC AGACCCTGAA GAGTGTGGCA
73381   TGAAACAAAA CTAGTCAACC TATAATATTT ATGATGTGTG TGTAAATAAA AGAATACACA
73441   ATATATTGCA TTACAATATT TTAACTGTGT CCTCAATTTG TTTGTGGCTT TCTTGAGGAC
73501   ATCAGTTTTG GGTGGGACGA CCACATCCTT AATCTGAACT TTCCCTTGGA GGTCATTCTT
73561   TTTTTTTTGA AATAGAGTCT CGCTCTGTCA CCCAGGCTGG AGTGCAGTGG CGCAATCTCA
73621   GCTCACTGCA ACGTCCGCCT CCTGGGTTCA AGTGATTCTC CTGCCTCAGC CTTCCAAGTA
73681   GCTGGGATTA CAGATGCACG CCACCATGCC GAGCTAATTT TTGTATTTTT AGAAGAGACG
73741   GAATTTCACC ATGTTGGTCA GGCTGGTCTT AAACTCCTGA CCTCATGATC TGCCCACCTC
73801   AGCCTCCTAA AGTGCTGGGA TTACAGGCGT GAGCCACCCC GCCCGGCCAG AGGTCATTCT
73861   AATAGACTTT TTTTTTGTTG TTGCTCACAG GCTTGTTCAA TCTTATTTCA AAATTTGAGA
73921   AATACAGTTT CCATGGAACA CCAACCAGAT ATCAGGTTGC TATGGAGTTG ATAGTCAAAA
73981   GCTTTGTATC TTCCAGTTTT TCAGAATGGC TTCTAAAGGT TCTGATTCAG AGCTCTTAGG
74041   CGAAATTGAA CAACCAAGTG TCAAAGTACA ACATTCAGGA AGTTAAAAAC ATGACTGACA
74101   TATATGTACT ATATATAGTG AGCTTGTGTA TGTGTCAATG AATGATTTAA TTCATTAATG
74161   AAGGAGGAAG CAGAATCACA ATTAGGTCAA AGGAAGATAC GGGAGAATAA AATATGTATT
74221   TGGTCAGGGA AAGGATGTAT ACTGGAAGAG GAAGGGAAAA TCAGATATAA AGTTGTTTAA
74281   TGACTTATTA GGCAATACAA TAATAACTTT TAGGGTCATT TTTTCTATAT TAAGAATTCA
74341   TTTCCATCTC TATGACAAAA TCCTTATTAA TTTATTAAAC TTCTACAAGT GAATGTTTAC
74401   TTTTAGATAG TCTGGACCCA ATAAAATGTA AACATTAAGT CAGAGTTACT TTCACGTAGG
74461   ACAGTGTTGT CCAATAAGGT ACCACTAGCT ACACGTGATC ATTGACCATT TGGACTATAG
```

Figure 9 (Page 23 of 74)

```
74521  CTAGACTGAT TTAAAATGTT CTAAAAGTGT AAAATACACA CCAGGTTCTG AAGATTTATC
74581  ATTTAAAAAA GAATGTCAAC TGTCTTTTTT TTTAGCTTAT TTATTATATG TTGAAGTGAT
74641  AATAGTTTAG ATATATTAAG TTAAATAAAA TATCTTAAAA TTAATTTTAC TTGTTTCTTT
74701  TCATTCTTTC AATGTGACCA CTAGAAATCT GGAAAGTATT TATGTGATTC ACATTCTATT
74761  TTACTGTCTA GTATTGCCTT ACATCATCAG GTACCCCATA AGTAGGCTTT TTAGATAATT
74821  CTCTAATATA GCTTGGAAGG ATATGGAGAA ATATTTTTGC GTTGCTTTTA AGTTTTGCAT
74881  AACTTTTTCA ACACACTTTA TAAAGGATCT AGAAAAGGGT TGGTTACATG TTTCTCTGTC
74941  TTCTGGCCTC CACCATGTTG CCAGGAGGTT GGGGACAAGA TTCTGGGTGG CTGGATGTCC
75001  TAATGGCTTG AGGTCTGGAC TTGAGATTTG CATATAAAGA GATGTGATTA GATTGAGTCG
75061  ACTAGAAAAA TCATATTAGA GAACTGAATC ACAGCGATTA AATTTACATG TCGATTTATA
75121  AACCAGGACA CCAATTTATA GTGAAAGAAG GTCCAGTTAC CTGGTAATCA AGACGTTTCA
75181  TAGCTATTTT CATGATGGAT ATACTTAGCT GAGTTTTAAA TGAGAAGGGG GTTCATTGCA
75241  CATAGAATAA GATCTAAGTG AAATGTTTAT TTATTTTTTT TTTTTTTTGA CATGGAGTCT
75301  TGCTCTGTTG CCCAGGCTGG AGTGCAATGA GGCAATCTCG GCTTCTGGAG TGCAATGAGG
75361  CAATCTCGGC TTCTGGAGTG CAACGAGGCA ATCTCGGCTC ACTGCAACCT CCACCTCCCG
75421  GGTTCAAATG ATTCTCCTGC CTCAGTTTCC TGAGTAGCTG GGATTAGAGT TGCCTGCCAC
75481  CACGCCAGGC TAATTTTTGT ATTTTTTTTA GTAGAGATGG GGTTTCACCA TGCTGGCCAG
75541  GCTGGTCTCG AACTCCTGAC CTCAGGCGAT CTGCCCGCCT CAGCCTCCCA AAGTGCTAGG
75601  ATTACAGGCG TGAGCCACCA AGCCTGGCCT AAGTGACATG TTCTTATATT GTTCCTTTCT
75661  TTCTTTTTTT TTCGACTGAG TCTCACCCTG TTGCACAGGC TGGAGTGCAG TGGCGTCATT
75721  TCGGCTCATT GCAACCTCTG CTTCCCGGGT TCAAGCGATT CCCTTGCCTC AGCCTCCTGA
75781  GTGCCACCAC CCCCAGCTAA TTTTTGTACT TTTAGTAGAG ATGGTGTTTC ACCATGTCCG
75841  CTAGGCTGAT CTCAAACTCC TGGCCTCAGG TGATCCGCCC CCGAGTCTCC CAAAGTGCTA
75901  GGATTACAGG CGTGGGCCAC GGGGCCCAGC CTTATATTAT TTCTTTTACT ACAATATATT
75961  AGTATGATGC AGGTGCTTCA ATTGTTTATA CACTTTCCAT AATTTTGTAT AATTCTTATA
76021  CCCTGTCACT CTGAGGAATA GCCGGTCTAA GTGTTTTTCC ACCACTGCTA ATTCATCCAT
76081  CACTAATCTC ATTAGACTGT TAATTCCCAG AGGACATAAG CACACAAGCA GACAATGTTT
76141  ACAAATGTTG GACAAATGTT ATTTAATAAA ACAATGGGGT CACCCTTAGT CTAAAAGATG
76201  TTTCACTTTT CATTTGTCAT TGAACTCTTA TTTGTAGGTT CCCTTTTGAC TTTCCCACAA
76261  TCTAAGGCTG TTCTCTTTAA CACATATTTT CATGAAAACA TATATTTGAG CAGAAATTGT
76321  TGGGGAGTTG TAATATTACC TTTGTCCCTA AATATGAATC TATAATTATA TCAAATATAT
76381  GGGCAGACAA TTTACTTTGC CTTTAATCTC AAGAAAAAAA TAGCAATTAC TTGGGGTCGG
76441  AGAGTAAAAT AAGAAGTAGT GAACCTTAAA GTAGCAAACT TTAGAACAGA ATAGTTTCAG
76501  AGGGGATGAG AAGAGGTGAT TTTTCAGCTC ATCAACAACA GATCTTATAA TAAATTACAT
76561  GTTCTGGTAC TTTTCTTGTC TTTCTGTGTT AAATTTTGCT ATTTAAAAAA ATAAATTTCA
76621  AATACATTGT TCATCTTAAA AGTCAAGAGT GTGTTTTATT AAAGTCAGTT GCTTTATTTG
76681  CAACTCAAAA GATATATTTG AGTTCCCAAC TGGAGATTGT CCTATATGGT AACTTGCGTA
76741  AGGTATGGTT ACTGAAAGTA ACCTACAATT TTCATGGGCT GAAATTCATT TCTATATTGC
76801  AGCGTACAAA AATAAATAAA TAAAAAATGC TTGTTTTCTT TGAAAACATA TTATCTCAGT
76861  GCCTCTAACT GCCAAATCTA TTGGCTTTTT TGCAGGCTTA AGGGCTCTCC CTTGTTCCTT
76921  TATGATCTCT ATCTTGAGGG CCAGACCTCC TGCCTTACAC AACTCAGAGG GGGACCTCAG
76981  AGCTCTTTAA AAAGAGCCCA ATTTCTCGCC TGTAGAGAAG TGAAAAGGAT GCCCCACCCC
77041  CATCTATGAA AAGAGGGATT TGATAGTTTC AATGTCTTCA AATCAAAGAT TTAAGTCTGT
77101  AGCCCCCCAC CACCCCGGAC CCTAGCAAGG CTCATGAACC CCCTCCCATC CCGCCCTAAT
77161  TGCTTTGGAC TGGCCGTGGA ATCCTTGTCC CAGTCCACAG TTCCTGTGCG ACTGCACGAA
77221  GAATTCACAG AGGACCTGTG TTACTTCCCT TGTGAAGAAA CAGAATTATC ATGAAAATTT
77281  AGGTGGAAAC CATTTCGCTT TTTTCTTCAA AAATAAGGGA AGCATGTGCC CAACCACCCC
77341  TGGGAAAAAG AACCTTCAGG GGCAAAGGAG CGAACAGGTA ATTTATAAGA AAAACAGAAA
77401  GTGGTCTCTG ACTGCCCCAG ACTTCCTTCG GAGTTGGGGG AATTGGGGAC GCCTGGACGC
77461  GTTGTTTTTG CGTTTGTGGA AAAAATAAAT GAAGAGCATG AAGCCCGAGG CTTCTGAGAT
77521  CCTTTCCTGA CCAAACCCAA GTGATTTGGT GCGGGGAATT TTAATATTTT TCCCCTTTTG
77581  TGAGGTGGAA CAAACACAAC TTGGGAGCAG CGCAGCGGCT CAGAGCCTGC CAGCCAGGCG
77641  GGCGACCAGA GCACCAATCA GAGCGCGCCT GCGCTCTATA TATACAGCGG CCCTGCCCAG
77701  ACGCTGCTTC ATCGGCGCTT TGCCACTTGT ACCCGAGTTT TTGATTCTCA ACATGTCCGA
```

Figure 9 (Page 24 of 74)

77761 GACTGCTCCT GCCGCTCCCG CTGCCGCGCC TCCTGCGGAG AAGGCCCCTG TAAAGAAGAA
77821 GGCGGCCAAA AAGGCTGGGG GTACGCCTCG TAAGGCGTCC GGTCCCCCGG TGTCAGAGCT
77881 CATCACCAAG GCTGTGGCCG CCTCTAAAGA GCGTAGCGGA GTTTCTCTGG CTGCTCTGAA
77941 AAAAGCGTTG GCTGCCGCCG GCTATGATGT GGAGAAAAAC AACAGCCGTA TCAAACTTGG
78001 TCTCAAGAGC CTGGTGAGCA AGGGCACTCT GGTGCAAACG AAAGGCACCG GTGCTTCTGG
78061 CTCCTTTAAA CTCAACAAGA AGGCAGCCTC CGGGGAAGCC AAGCCCAAGG TTAAAAAGGC
78121 GGGCGGAACC AAACCTAAGA AGCCAGTTGG GGCAGCCAAG AAGCCCAAGA AGGCGGCTGG
78181 CGGCGCAACT CCGAAGAAGA GCGCTAAGAA AACACCGAAG AAAGCGAAGA AGCCGGCCGC
78241 GGCCACTGTA ACCAAGAAAG TGGCTAAGAG CCCAAAGAAG GCCAAGGTTG CGAAGCCCAA
78301 GAAAGCTGCC AAAAGTGCTG CTAAGGCTGT GAAGCCGAAG GCCGCTAAGC CCAAGGTTGT
78361 CAAGCCTAAG AAGGCGGCGC CCAAGAAGAA ATAGGCGAAC GCCTACTTCT AAAACCCAAA
78421 AGGCTCTTTT CAGAGCCACC ACTGATCTCA ATAAAAGAGC TGGATAATTT CTTTACTATC
78481 TGCCTTTTCT TGTTCTGCCC TGTTACTTAA GGTTAGTCGT ATGGGAGTTA CTGAGGTATC
78541 AGAGACGAAT TGGGTGACGG GGTTGGAGAG TGGCCGTGGT GAGGTTACAG CATTTAAACC
78601 TTTATTGCGG CTTCTAGGTC CCTGACCGGA GGCTTTTCTC GCTGGCGGAT GGTTTTGGGA
78661 TGGCAGTCCC GCCCCAGGCC TGTGAACGGC AGAAAAGACC GCAAAACAAG AGCCAGTTTC
78721 TTAGTCTAAA GGGATGTCCG GATTGGACTA AAAAATTTTC AAAAGTCCCG CCCTGCTCCC
78781 GGGTTGGTCC GTTCTTCTAG TACATGACTT TCATTCTGTA TTTAATTGGA TGGTGGAAGA
78841 CGTTGCTTAT TCTGTGTTTT TTGCTTTACT GTGACTTAAA AGTTTTGCCT CTTTTCTCTT
78901 TATATTAATG TCTGGGATTT CGGACGCTTT CCATGTTGTT GGTAGTCAAG TTGATGTCTC
78961 CTGGAGGTAG TGGCAACATC CAGCCCTGGG AGGAGAGTGC GTGCAGGTAC CTTTGTCCTA
79021 CATTCCTCTG CTGTTAATTT CTCATTCCTG TGGCAACGAA GGAATGCATT TAAAAAACAG
79081 CCACAACAGC GGCAATAGCC CTTCCTCCAC CCAAGGCAAT CGTGGACCTA GGGAGTTTTT
79141 TGTGCCACAT AACATGTAGC CTTCCGCTAA ACTGACAGGT TTGAGCGTAT CGATTTTGAG
79201 CGTATCGAAA GCACAACTTT TAGCCAGCCA TTTTGTCCTC GCATGACTAC GGTTGCTTAT
79261 CCTGTTTAGA CAGACAGCAA CATTTAAAAA TCGAAGTTCC TTTAAACGTA TTTTGTTTGG
79321 CAGTCCAAAT GTTTCTATGC AGAAAACAGT ATTTGTACTA TTAACTATGA AGAGTGTATG
79381 GATAAATGGG AGACATTTCT AATAAAGGCC TTCGTTAATG GTTCCCTCTG TTTGACATCC
79441 ATGGTGCTTC TGAATACAGA AAGCCTAGCG TCTTATATTC GCTTCTTTTA AAATCTGGTG
79501 GGCACATTTT GGTGAGACCT AAATTATGGG GACTGGGGCT TCTGGAGATA AGCTGCTCAA
79561 TTATTCTACC ATCTCCACAA TGATTAATAT AGTGAGTTGA TTTGTTAGTG ATAGTGACCA
79621 CGGATTCATC CCAAGAAAGA GAAAGGGGAG GGAGGCAAGC AGAGAGACAG GAAGACAGAG
79681 GCAGGGAAGA AGGAGAAAAC ATTCTCCCAT GGTTTAAGTA ATTTTGTGTT GTTAATTTTA
79741 CATTACAACA CGGTTTAACA TGGTGAACCC TCTATTTTGG TGTAAGGTTT AACATATGGA
79801 CATATTTTTC CCAAGACCAT TTATGAACTT TCATTTCTGC TTCCCCCTTC TTCCTCCCGT
79861 GCCACCCTCC ACGCTCCTAT CAATTTTGGC TGTTTTGTCA TAGGCTAATA CGCTATAATT
79921 TCATGGACAG TTGGACTGTC TTAGGTTTCT CAGGTTTCTA TTTTGTTCCT TTAGTCATTC
79981 CCACAATTCT TAAGGTAGAA TTGTATTGTT TTAAACATTG TGTTGTGTGC TATCCTCAAT
80041 GCTGAGATGA TTATGTGACA AATGGCAAGT GTTCAACTAA TACCTAAATC TGTAGTATCT
80101 TATCAAGCCT AATGCTACTT CACAATGCCT ACTCCATTCA CCGCACTTTA TCTCATTACT
80161 GGCATTCTGT CATCTCACAT CATCACAAGT AAAACGGTAA GCTATTTTGA GAGAGATCAC
80221 AGTCATATAA TTATATTTAT ATTTATTTAT TTATTTATGA GACGGAGTTT CCCTCTGTCA
80281 CCCAGGCTGG AGTGCTGTGG CACGTTCTCG GCTCACTGCA ACCTCCGCCT CACGGGTTCA
80341 AGCGATTCTC CTGCCTCCGC CTCCCGAGTA GCTGAGATTA CAGGGGCCTG CCACCATGCC
80401 CGGCTAATTT TTGTATTTTT AGTAGAGACG GGGTTTCACT AAGTTGGCCA GGCTGGTCTC
80461 GAACTCCTGA CCTCAGGTTA TCCGCCCACC TCATCCTGCC AAAGTGCTTA GATTACAGGC
80521 GTGAACCACC GTTCACAGAC TCAAATCATT TTTATTACAG TATATTGTTA TAATTGTTGT
80581 TTTATTATCA GTTATTGCTA ATCTCTTACA GTGCCTGATT TATAAATTAA ATTCATCATT
80641 GCCATGTGTA TATAGAAAAA AACAGTGTAT ATACGGTTCA GTACTATCTG TGGTTTCAGG
80701 CATCCACTGG GGGTGCAGTT TATTAAACAT GCATTTACAT TAGTCTCCCC TTTGGGAGAC
80761 TAATTAACTG AGATGTTGTA ACGTGACTTT AATAGCAGAT AGAGCTAATT TTCTCTCATT
80821 ACTCTTCTTT TTCAGAATTT TCCTGGTTAT TCCATTTTTT ATTTTTCCAT ATGTATATTA
80881 AGATCTCTTC CACCTCCTCC TGTTTCTCCA TCTCAACATC AAACAATTAA AAAAAAAAAA
80941 AAAGGCTGGG CGCGGTGGCT CACGCCTATA ATCCCAGCTC TTTGGGAGGC CTAGGCGGGT

Figure 9 (Page 25 of 74)

```
81001  GGATCACGAG GTCAGGAGTT CAAGACCAGC CTCGCCAAGA TGGTGAAATC CCGTCTCTAC
81061  TAAAAGTATA AAAATTAGCC AACCATGGTG GCAGGCGCCT GTAATCCCGG CTACTCGGGA
81121  GGCTGAGGCA GAGAATTGCT TGAACCCGGG AGGCGGAGGT TGCAGTGAGG CGAGACCTTG
81181  CACTCCAGCC TGGGTGACAC AGCGAGACTC CGTCATAAAA AAAAAAGCCG GAAGCAGTGG
81241  CTCACGCCTG TAATTCCAGC ACTTTGGGAG GCTGAGTCAG GCAGATTACC TGAGGTCAGG
81301  AGTTCAGGAC CAGCCTGGCC ATGAAAATAC AGCCTGGCCA TGAAAACACA CAATAAATTA
81361  GCTGGGCGTG GTGTCACACA CCTGTAATCC TAGCTACTCG GGAGGCTGAG ACAGGAGAAT
81421  CACTTGAACC CAGGAGGCAG AGGTTGCAGT GAGTTAAGAT GACGCCACTG CACTCCATCT
81481  GGGCGACAGA GCCAGACTCT CTCTCAAAAA ACTAAATAAA TAAAAATAAA GTTATGGTAC
81541  ATTGAACTTC TGTGTTCCTT TCTCCCTTAG ATACTTTCAT GGCTACCCAT TTAATTGATG
81601  TTCTTATCAT CTCCAAGAGT TAGTCAGGAG AGGAATCAAC CCAAGCAAAA ATAGCTGATT
81661  TTCTAATTTT CCTTCAATGC CCTTTGGGGT CTTAATCCAT TTGATTTATG TACTTTCAAT
81721  TAATCCTAAC CTCGAATGTC TTCTGCAAAC ATGTTTCCAC AGATGAAACT CGTCAAATGA
81781  AACACATTCC TTTAATTTAT AGAGTTAAAA ATTAGAAAAA TTTTCAATTC TATTTGGCCT
81841  TTAGATTCAG TCTTGCATAT GTTTTCTCAA TTTTGTTCAT GCTCTTTAGT TTTGTTTTAT
81901  TCCATCACAA TTGTTCACAT AGCTTACTGG CTTAGGTCTA ATGAACCATT CATTTGGAAA
81961  TTAAAATTGG CCATTTTAAG ATGAAAAAGA TTCTTGCCTC AATTTTACTT AGTTTTTGAA
82021  ACTGTCAATG AGGACACATG TTTTTCTGTA CTCTTAGATT CACTAAGTAG TGTCTTGCAA
82081  ATTTAACTGA CAAAGGACAG ATTAACATGC GAAAAAAAAA GCATGCAATT TTATTAGTAT
82141  ATTACATGCA CAGAGTTCCC AAAGAAAAAA AAATTGAAAC CTTAAAAACG CGGTTAGACT
82201  CACAGACTTA TACACCATTC CAACAAAGGA AAGGGAGTTT GCACTTCATG GGATGACGAA
82261  TTTGGGAATG TGACAAGGAA ATAAATACAT GGGCAATAAA AACCATGGAA GATAAAATGA
82321  AAGATAGAAA TAATTGTAGT AAGGTTTGTT TTTGCAGAGT CATCTCAGTG CCAACCTTCC
82381  ATATCTAGTG ATAAGAATTG CTCTCTTTTT CCTGGTATAG CAGTTGGGGA CACTTTTACA
82441  AGGGAAATTT CTGTCACCTT CACAAAGGGA AATTTGGGTA AAGAGAAGAC AGAGACCTCT
82501  TCCTACACCT GTTGATTTTC AATTGCCTTC AGCTGAAAAT AACTTTTATG CCAAAGTAGA
82561  ATAATTTGGG GGTGACATCC TGATATTCTT CAAAACTTAT ATTTAATTTC ACATTAGTAA
82621  TTATATCATT TTTGATTTTT AAATTAGTTT TATAAAATAA TTTTGAAAAA CGGTAATAAT
82681  ATTCAAATAA TTCCAGAAAC ACTGCTGATA AGCCAAAAAC ATCAATGAAT ATTGCATAAA
82741  CAACTGATAA TTCAACCATG AAAATTTATG ACATTGTTCT TGTGTGATAA AACTATGAGT
82801  AACATAAAAA CTAGAGGCTA CTTGTAATGC ATTATTCCAA ACTTTCTGTT TTTTATTTAT
82861  TTATTTATTT ATTTTGAGAC ATAGTCTCTC TCTGTCACCC AGGTTGGAGT GCAATGGCGT
82921  GATCTTGGTT CACTGCAGCC TCCACTTCCC CGGTTCAAGC AATTCTCCTG CCTCAGCCTC
82981  CTGAGTAACT GGGATTACAG GCACCTGACA CCAAACCCGG CTAATTTTTT TGTATTTTTA
83041  GTAGAGACGG GGTTTCGCCA TGTTTGCCAG GCTAGTCTCG AACTCCTGAC CTCAGTGATC
83101  CACCTACCTC GGCCTCCCAA AGTGCTAGGA TTACAGGCGT GAGCCACCAT GCCCGGCGCA
83161  TTATTCCAAA CTTTCATACA CAGTGCTATC ATGGCTACAA ATTGAAGTAT CATATTATAC
83221  ACTCCTAGGC AAAGCTCTGG ATATTTTGGC TATATAAGCC TGAGGGAAAT GTAGTAAGGA
83281  CATTGTGGTT GAAATTCATA CCAGAGATGA ACAGGCCCAG TGCAAGACAG AATTACATCA
83341  CTAAAGGATA TCAGAAGAGA ATAGGGATTT AGGGTACAGT GGCAACAACA GTTTTGGGAA
83401  CTAGCATTTT TTGAGCACTT ATTTACAATA TGCCAAGCAC TGTTGCTGAT TACTCTATAT
83461  TTATTTTCAA ACACATTCTT GTCACAGCAC TTTGAAGTAA GTGCCATTGT CATTCCCACT
83521  TCAGGGTGAA GGACTAAAGC TTGGTGTCAT TAAGGATGTA GCTAGTTAGC TGTGTGTGTG
83581  TGTGTGTGTG TGTGTGCATT TTTTTTTAAA TTTAAAGTCA ATAAATTTTT ATTTGAAGAA
83641  TTTCACATCA AGGTAAACTT TGTTCCTCTA AAGAGCTGGA GTCAAAATGT ATCTTCAAAA
83701  GATTCATCTT CAAGTTAGCC CTTCTTAATA GAACTGATGC TTAATCCACA GTTGTCAGCC
83761  CACAGTTCTT TTATTTTGAC TTTTTTTTTT TTTTTTTTTG AGACGGAGTC TCTCACTGTC
83821  ACCCAGGCTG CTGGGCAGTG GCGTGATCTC GGCTCGCTGC AACCTCTGCC TCCCGGGTTC
83881  AAGTGATTCT CCTGCCTCAG CCTCCTTAGT AGCTGGGACC ACAGGCGCAT GCCATCGTGC
83941  TCGGCTAATT TTTGTATTTT TATTAGAGAC AGGGTTTCAC TATGTTGGCC AGGCTGATCT
84001  CAAACTCCTG ACCTCATGAT CCGCCTGCCT TGGCCTCTCA AAGTGCTGGG ATTACAGGTG
84061  TGAGCCACTG CACCCGGCCT TATTTTGCCT TCTTTAATCT CCATTTGAAC ATGGACATAC
84121  TGATGAAAAC TACAACATTC TTCACCAAAA ATCTTTGGGA TTTAATTTCT TCAACCACTT
84181  TACTTTGGGG TCATTTTAAG ATTAGGTGTA TCTGCCTGGT TCTCAATTTG ACACCCTTTC
```

Figure 9 (Page 26 of 74)

```
84241   TCTCTAAACA TGAATGAGTT CCAATCATAT TTATTCCTAA GCTATCACAC TCAAATATAC
84301   TACAGATCTG TGGAATATGC CAAAAGTTAA GGTGAAAAAT TAAATTATTA GGTATTTCAT
84361   AGTTTTGCTA GTTTTTGATC TGTGAGTGAA TATAACTATC CTCTATGTCC TGGCACTGTT
84421   CCTCAGAAAC ATAGGGTCCA CATATGTAAT TTTAAATTTT TTAATAGGCA CATTTTAAAA
84481   AGTGGAAAAA GAAATCTATT TTAATGATTT GAATCCAGTG TAACCAAAAA TTGTTTCAAC
84541   AAGGTATCTA ATATTAAAAT ATTGAGTTTT TACTTTGTTA TTTTACTAGG TCTTTGAAAT
84601   CTGGTGTGTA TTTTACACTT AAAGCACATC ACAGTTTGGA GTAGCCACAT TTCCAATGCT
84661   TAATACTCAC ATATGGTTAG TGGCAACTAT CTTGGACAGG ACAGCTTTTA TACTCTGGGA
84721   AGACACAAGC AAATACTTGC TCTGCAGCAG AATCCAGATG TTTTCCAAGA AAACACTTTT
84781   TCTGACCTGT TCGTGAAACC CAGGTAGTGT CTCTAATACT TTATATTTTA TTGGTTTGTC
84841   CTATTGTAAC CACCCAACGG GCTCTCCTTG TCCACTTCCT AGACAGAGCT GATTTATCAA
84901   GACAGGGGAA TTGCAATAAG GAGCCAGCGC TACAGGAGAC TAGAGTTTTA TTATTACTCA
84961   AATCAGTCTC CTTGAGAATT TGGGGACCAA AGTTTTTAAG GATAATTTGA TTGTAGGGGA
85021   CCAGTGAGTC GGGAGTGCTG CTTGGTTGGG TCAGAGATGA AATTATAGGG AGCCTAAGCT
85081   GTCCTCTTGT GCTAAATCAG TTCCTGGGAG TGGTGGGGTG GGGGACTCAA GACCAGATAA
85141   TCCAGTTTAT CTATATGGGT GGTGCCAGCT AATCCATTGT GTTCAGGGTC TGCAAAATAG
85201   CTCAAGCATT GATCTTAGGT TTTAAAATAG TGATTTTATC CCCAGGAGCA ATTTGAGGTT
85261   TAGAATCTTG TAGCTTCCAG CTGCATGACT CCTAAACCAT AATTTATAAT CTTGTGGCTA
85321   ATTTGTTAGT CCTGCAAAAG CAGTCTGGTC CCCAGGCAGG AAAGGGGTTT GTTTCTGAAA
85381   GGGCTGTTAT TGTTTTTGTT TAAAAGCAAA AGTATAAACT AAGCTCCTCC CAAAGTTAGT
85441   TAATCCCAAA CTCAGGAATG AAAAGGACAG CTTGGAGGTT AGACGTTAGA TGGAGTCGGT
85501   TAGGTAAGAT CTCTTTCACT GTAATAATTT TCTCAGTTAT GATTTTTGCA AAGGCAGTTT
85561   CACTGTCCAC TTCACCTCAC ATCAGGCCTC TGACTAGAGG ATTCCAACAA TACTTAGGCC
85621   AGGACACCAC CATGTCTCCT TATCCACCCT GAGGGATTCC AATTTCTGAA ACAAAGGAAA
85681   CTATATATGA TAGTATGAAA CTATATATGA GAAGGAAATT ATATATGATA ATCAATTTTA
85741   GGGTTATCTT ATTGATTAGA AGATATTAAA GTGTGACACT GCCTGGCAAT GATATCTGCT
85801   GGTAGTAAGA ATTTGGCGAA TTTAGTGAAA TTCCTGAGGC TGAACCTCCA CTTCTGTAAA
85861   ATGGAGACAG TGAGATAATT TGCCTTACAA TGCTGAAGTA AGAATTTTAC ACAATAATTC
85921   AGACCAACCA CTTCATGTGG TACTTGGCCC GTGGAAGACT ATCAATGACA GTTAGTTTAT
85981   AGTTTATACT ATTAATGAAT CCTTTGTTTC ATTGTTATTT CCTTCTACAC GTTGGCCTCT
86041   CTAAAAGAAG GTAATATTCA ATACAAATAA AGTTAAAACA GCTTGCAGAG TTGTCCCAGG
86101   GAACTCACTT AACCACTGAA GTGTTCAAAT TGCTTAAGGT TGACTTTATA TTCTCCTGAC
86161   TAACCTTTCT CCTTCTGGTA TTTCTTCTGA GAACAGCACC ACCATCCAAA GCATCATGCA
86221   AACAGTGGTC ATCCCAGACC AGTAATTCTC AACTCACAGG GTGCTCCTGC AGAGATGTAT
86281   TTGAATAGAG TGGTAGGATG CTGAAGAAGG CCACGTAAAA TTTGGCCAGT GATCTGGGGC
86341   AGATTTATCC TGAAGCTAAT GAAACACAAG TGTAAGGGCC TGTACTTCCA AGGTGCAGAG
86401   AGGGGCCCTA CAAATGTGTT AGTTTGTCTC TCTCTCTCTC TCTGATTTTA AAATTTGCAG
86461   TATTAAGGTA CTTTAATCAC GGATGGTTCA GGCTGCTATT TTCACTCAAT CCTCCTTTTT
86521   ATTAAAATCA CCATTGTCTG ATTATGTTAG AATCCTGATG AAAATATTTG GAATTTGAGT
86581   AAGAGAAAGT TTAGTTGAAG ATGTATCTAG TATGGGGATA ATAAGTTACG TGATTTGCAT
86641   ATGTGATCAT GTGTACTTCA TTCGTTGCCA GCCAATCTGA CGTAAGAATG GCTTCAAGGA
86701   GGCCGGGCGC GGTGGCTCAC GCCTGTAATC CTAGCACTTT GGGAGGCCGA GACGGGCGGA
86761   TCACGAGGTC AGGAGATCGA GACCATCTTG GCTAACACGG TGAAACCCCG TTTCTACTAA
86821   AAATACAAAA AATTAGCCGG GCGTGTTGGC GGGCGCCTGT AGTCCCAGCT ACTTGGGAGG
86881   CTGAGGCAGG AGAATGGCAT GAACCTGGGA GGCGGAGCTT GCAGTGAGCC GAGATCGCGC
86941   CACTGCACTC CAACCTGGGA GACACAGCGA GACTCCGTCT CAAAAAAAAA AAAAAAAGAA
87001   TGGCTTCAAG GAATGTTCCT ACTGCTCACT GGAATAACTC ACCTAAATTC CTGGCAAGAT
87061   GCAGGTCTAG ATAAAATGTT ATGACATCTA AGTATTCAAA ACACATTCCC AGCACTGAGA
87121   GTGAGTGTCT AGTGGAGAGT AGAAACGTAT AGAGCCAGAA GCTAGTCTGG AAAGAATTCT
87181   TACAAAGTTT ACAACTTACA TGTGAAAGGA GCTTAACAGA GGATTTTCCA AATTTGAAAA
87241   CAATCCTAAA AACTTACTTG ACATTACCAA TAATGTGTTT TGAAACTGAA ATACTTCTAA
87301   GTTATGAAGA AAACATATTA TCATCAGCCA CCCTGGAGGA AAGATTGAAT TCTATTTCCA
87361   TTACCTATAG ACAACATTAC AAAATAATTT CGATCTGAAG ATGGAATCAG AGTATTCAGT
87421   CAAAACTACA GGAAAATATA CTTGGTAGTG TCATATTCAG AAGTTAATAA AATATGCTAT
```

Figure 9 (Page 27 of 74)

87481 TTTCTGAATT TTGTGATGGC TGTTGTTTTG TCAGCTTTTA TAAAATTGGA ATTTGATTTT
87541 ATTTTCCCAT TATAAATTTA TATTTACAGT CTGCAGTACT TTTGCATTTT TAATTTTACA
87601 TTATAGCTTT TAATAGTTAA CAAGTTGTAA AAGGTTTGAT CCCCAGAAAA CCTTGATCTA
87661 CCCCCTCAGT TAAGTATACT AATATATTTA GAAAATGGAT GAAATCAGCA TTTGAATATT
87721 TTTAAATATT TATTAAAAGA GGACATGGGT AAAAGAGCTT TGCAGTTGCC ACCCTTCATT
87781 CTCAAATTCC CTGGATAAGG ATGACCGCAT AATCTTTGGA TGGTCATACG CAAGTCTTGT
87841 GTATTTGTTA CATAAATCTA TTTAGTGGAC TTTTGGCAGT GTGTACTGAG GCCAGTTTCT
87901 TCCACCTGAG CTCTGACTCC ACCTCCAGCA GCCCAAAACC AATACTGAAT TTTGGGGTCA
87961 GCTATTGTTT TTGTGGACTT AGGTAACTAC ACACACATTG TCTTTATGAT AGCTTTAATA
88021 ATACTGCCAT CAGAACTAAA ATTGTCACGT GGATTAAAAG GAGTGACGGT GGTGTCCCCA
88081 GGAGCCTTTC AATATGTAAG TATTTACACA TATACATGCT AAAAAGACCC CTAGGAATTT
88141 TTTTAACAAG GGCAAAACAG TAACTCAGCT TGTTTTCTCG CAGTAAAACC GGTTGAAAAG
88201 GCCTGATAGA CTTGTCTGCA GTTACAAAAC TTGTGTGTAG TTATCACCTT TATATCTCCT
88261 GGAAACTAAC ATAGACAACC GAATGGGTTA CAACTGTTTT TAAGTGAAAT TGTGAGTGGC
88321 TCTGAAAAGA GCCTTTTCAA TGAGGAAGAA ACGGGCAGAC TTATGCCCTT TCCCCACGGA
88381 TGCGACGTGC CAGCTGGATA TCTTTGGGCA TGATGGTGAC GCGTTTAGCG TGAATAGCGC
88441 ACAGATTGGT GTCTTCGAAG AGTCCCACCA GGTAGGCCTC GCAAGCCTCC TGCAGCGCCA
88501 TCACCGCAGA GCTCTGGAAA CGCAGGTCGG TTTTGAAGTC CTGGGCGATT TCTCGCACCA
88561 GGCGCTGGAA CGGCAGCTTC CGGATCAGCA GCTCGGTGGA CTTCTGGTAG CGACGGATTT
88621 CGCGCAAGGC CACGGTGCCC GGGCGGTAGC GATGAGGTTT CTTCACGCCA CCGGTGGCCG
88681 GAGCGCTCTT ACGGGCTGCT TTAGTAGCAA GCTGCTTGCG CGGAGCTTTG CCGCCGGTAG
88741 ACTTGCGAGC TGTTTGCTTC GTACGAGCCA TTTGCAATGA GAGCACACAC AAAAGTGTAG
88801 TGAACTGAGA GCAAGTGGCC TTTAAATATA GTGAGAAACA TTCTGATTGG TCCTGTAATA
88861 TTTCAAAAGT CCCGCGCGAT AAAATCATTG GCTGAAGAGT GACCAGACTG ATTGGTTCAT
88921 TACTAGACAA TCTTATTGGA TGAGTTGCCC CACCGCCCAT CCTGTCCTTT TCGTTTCAGT
88981 TATCTGCAGC GACAAATTGT CTAAAATTCT AGTTCATCCA GTCCCAAAGA ACAGAGTGTA
89041 TAACAAGGTA TCTAAGGATT TTTAAAATGT AAATTCCGAT TCAGTAAGTT TGAGTGGGAC
89101 TTGAAATTCT GCATTCCTGA CAGTCTCGCA AGTTATCAAT GCTGGTGAAC ACTCACTAAA
89161 CCACCAGAAA CGTTCAGACT CATGTCGGGA AATAACGCTT ATATTCAGAG AATGAGATTC
89221 CATGCTATTT TGTTACTGGC GAACAGCAAG TTTCCTTGCC CTTTGTTTTC TAAGTCCAAG
89281 TCACATTCCC ACCCTGCCTG TTCTCAAAAT GTCTTATTTT GGTTGGCCTT AAGTTTCACT
89341 TTGTATACTC TAAAATGTAC TTTCTAAAGG AAGGTGTTAT TTTCTCGAAA CTTAACTTTT
89401 TAACACCATT AGGCTAGGGG GGCGGTGGCT CACGCCTGTA ATCCCAGCAT TTTGGGAGGG
89461 CGAGATGGGA CGATCACTAG AGGCCAGGAG TTCAAGACAA CCCTGGCTAA AATGGTGAAA
89521 CCCCGTCTCG CATAAAAATA CAAAAACTAG CTGGGCGCGG TAGCAGACGC CTGTAATCCC
89581 AAGTACACAG GAGGCTGTGG CATGAGAACC GCGTGAAGCG GCGGGGTGGA GGTTGCAGTA
89641 AGCCGATATC GCGCCGCTGC ACTCCAGCCT GGGTGACAGA GCTAGACTGT CTCAAAACAA
89701 ACCAATCCAA ACGAAAAGCA AAAAATACCC TAACAGAAGC AAGTTATCAT CCTTTCTTGT
89761 GTAACTATGG ACGGCTCTGA AAAATGCCGT TTCAAGTGTA AGCTACGTTT TCTGATTTGA
89821 GTGTTTACTT GACCTTGGCC TTATCGTGGC TCTGTTATTT TGGCAACAGG ACGGCCTGAA
89881 TATTGGACAG GACGCCTCCC TGAGCAATAG TGACGTTGCC CAGCTGCTTG TTGACCTCCT
89941 CGTCGTTTCG GATGGCCAGC TGCAGGTGGC GGGGGATGAT GCTGCGGGTC TTGTCACGTA
90001 TGGCGCTGCC CACCAGTTCT AAGATCTCGG CGGCCAGGTA CTGTAAGTAC ACTGGCGCAC
90061 CGGCTCCGAC CGGCTCAAAA TAATTGCCCT TTCGAAAAAG ATGACGGACT CTGCCCTATT
90121 GGGAACTGCA AGCCCGGTAG CGACGAACAA GTTTTTGCTT TAGCTCCATT TTCCACGTCC
90181 GCAAATAGCG ACCTATGAAA GCAGCGGAAA ACTGTGAAAG ACAAGCAAGC TGGAATGGCG
90241 CCTGAACAAA TCCTTTTATA CAAACTGCAA GGCTGCAATA GGAAGCTATC CTATTGGTCA
90301 ATTATGTTTG GTGCTTTATC CAATAGAAAA AGATAACATA AATTCCATAT TTGCATAAAC
90361 CCCACCCCTC AGTGAAACCG TGTTTCTTTT GTCCAATCAG AAGTGAGGAA TCTTAAACCG
90421 TCATTTGAAT CTCAGGACTA TAAATACATG GGCTCTGAAC TGTTCTCTGT ACTACTCTGT
90481 AGTGGAGAGT GTTAGTAGCT TTTCTATTCT GTTTAGGAAT AGCAATGCCT GAACCCTCTA
90541 AGTCTGCTCC AGCCCCTAAA AAGGGTTCTA AGAAGGCTAT CACTAAGGCG CAGAAGAAGG
90601 ATGGTAAGAA GCGTAAGCGC AGCCGCAAGG AGAGCTATTC TATCTATGTG TACAAGGTTC
90661 TGAAGCAGGT CCACCCCGAC ACCGGCATCT CATCCAAGGC CATGGGGATC ATGAATTCCT

Figure 9 (Page 28 of 74)

```
90721  TCGTCAACGA CATCTTCGAG CGCATCGCGG GCGAGGCTTC TCGCCTGGCT CACTACAATA
90781  AGCGCTCGAC CATCACCTCC AGGGAGATTC AGACGGCTGT GCGCCTGCTG CTGCCTGGGG
90841  AGCTGGCTAA GCATGCTGTG TCCGAGGGCA CTAAGGCAGT TACCAAGTAC ACTAGCTCTA
90901  AATAAGTGCT TATGTAAGCA CTTCCAAACC CAAAGGCTCT TTTCAGAGCC ACCTACTTTG
90961  TCACAAGGAG AGCTATAACC ACAATTTCTT AAGGTGGTGC TGCTGCTATT CTGTTTCAGT
91021  TCTAGAGGAT CAACTGGAAT GTTAGCGAAG ACAAGTTTTA GAGCCAAGGT TAACTTGGAC
91081  GGGGCCGTGC GCGGTGCCTC TTGCCTTTAA TCCCGGCAAT TTGGGAGGCC GAGGCGGGCG
91141  GATCACTTGA GGTCGGGAGT TCGAGACTAG CCCGGCCAAC ATGGCGAAAG CCCGTCTCTA
91201  CTAAAATACA AATGATAGAC GGTCGTGATG GCGCTCTTTC TCATCTGTCT TAGCAAACTT
91261  CTTTGTTCCC CCTGGGTAAG CCTTCGGGTA CTATGTATAA TTCCTTTGAT AAGGTCACTA
91321  CTCCCTCCCT GGTCTAGTAC AGGAAACTTC CCTTTCTGGA TAATGAAGCA GGTAATGGAA
91381  TTCAGGGTAT AGTGTTCCTG TGGGGGTCAT TAGCCGTTAA CTTCTTGTGA GATGCGGGGG
91441  AGGGGAGCAG AAAAGTCTAA GCGACAAAAG GGCATGTAGG GATATTTGCT CCTGCAGCTT
91501  GCCTATGCTG TAAATTCTTA CTTCAAGTAT TGAGGAAACA ATAAGCGAAG TCTGATTTCC
91561  CGGGCGCCTT TATACGGAAT ATTTCCCGCT CCACAAAATG AAATCGCAGT AGTTTTGAGT
91621  TATAATTGTT TATCAATGAC AACAGCTATG TAGTTTACAT ATTTCATGCA TCCCAGAAAT
91681  CCAGATTCCC ATTTCCTAAG CCACTTAACG TTCTGATTTC CAGCTCTGCG AGATACAAAA
91741  GGGTTTGGAT TTTGTGCCCT TCCCCATCTG GCGCCACTGC AAAGCTTACT AGGAGGGCCC
91801  CACTTGGAGA GGGAAATCTT TTTCGAGAAG TCCAGGACGC CAAAAACAAT ATAGCTAAAA
91861  AAAAAAAAAA AAAAAAGGCA GGAAGAGCAC TAGTTGAGGA GGAGGACTCA ATGGGCCAAT
91921  TCTGGGGCTG GGGCTGGGGG AAGAAATGCA AGAAGAAAAG ACACTTGTTG ACTGCACAGT
91981  AAGCAGGAGG GGGTGGGGGA ATCGGAGGGG AGTATTTTCA GCGAATTTAT GGGCATTATA
92041  TGTAGGTGAC ATACAGCAGT GTCTTTGGAT GAAGAAATAA AGTTTCTCAA ACAGTTCTTG
92101  TTTTTGTTTT GAGAAAGGGC CTTTCTCTGT CGGCCAGGCG CCATCATAGC TCACTGCAAC
92161  CTCGACTTCC CCAGCTCAAG CGATCCTCTT ACTTCAGCCC CTTGAGTGGC TGGGACTAGA
92221  GAAATGCACC ACCATACCCA GTTAATTTTT TAATTTTTTG TGGAGGCAAA GGGTCTTACT
92281  TTGTTGCCCA GGCTGGTCAA GCGAACTCCT GGGCTCAAAT GATCCTCCCG CCTTGGCCTC
92341  CCAAAGTCCT GGGATTATAG GAATGAGTCA CCGCGCCCGG CCCAGATTTA ATTTTTAAGA
92401  ATCTTTTAAA AGAGGTTCTG GGCCGGGTGT GGTGCAGCTC ACGCCTGTAA TACCAGCATT
92461  TTGGGAGGCC AAGGTGGGAG GATCACTTGA GCCCAGGAGC TCAAGACCAG TCTGGGCAAC
92521  TTAGTGAGAC CTTTTGTCTC CACCAAAAAT TTAAAAAATT AACCAGGCCT GGTGGCACAT
92581  TTCTGTAGTC CCAAGTACTG GGGAGGCTGA AGTGGGAGGA TCATTTGAGC CTGGAAGGTG
92641  GAGGTTGCAG TAAGCTGTGA CGGCACAACT GCACTCCAGT CTGGGTGAGG ACAGACCCTG
92701  TCTCAAAAAT AAAAAATAAA AAAAAATCTG GATGCCACAC AAAATGTCAG TGAACAACTG
92761  TAAGTGAAGC ACTTCCCATC CTAGTACTGT ATATGCAAAC TGCCGTTGTG AAAGTGACGC
92821  TTGGCTTAAA AATCTACATT CTTTTTTTAA TTATAAAACT ACCACATCCC CCAAAAACAT
92881  TACTAAGGAA TTGAGGCTGC AGTTTAAGAA GCTGATATTT AGGATCTATC TCCGGAGAAG
92941  TGAGACCTGG TAATATAAGC ATTTTCAAAA TGAACTTTTG GGCCAGGTGA GGTGTGTCAT
93001  GCCTGTAATC CCAGCACTTT GGGAGACCTA GTCAGGCAGA TCACTTGAGC TCACAATTCG
93061  AGACCAGCCT GAGCAACATG GCGAAATCCA GTCTCTACAA AAAATTAGCA GGGCGTGGTG
93121  GCATATGCCT ATAGTTCCAG CTACTATAGA GGCTGAGGTG GGAGGATTAC TTGAGCCCGG
93181  GAGGCAGAGG TTGCAGCAAG CCAAGATCGC GCCGCCACAG CCTGAGCGAC AGAATGAGAT
93241  ATGCACCCAC GCCCTAAAAA AAAGCATGAC TCATTAAAAA AAAAAAATTT AGCCGGTCGC
93301  GGTGGCTCAC GCCTGTAATC CCAGCACTTT GGGAGGCCGA GGCGGGCGGA TCACGAGGTC
93361  AGGAGATGGA GACCATCCTG CTTAACACGA TGAAACCCCG TCTCTACTAA AAATACAAAA
93421  TAATTAGCTG GGCGTGATGG TGGGCGCCTG TAGTCCCAGC TACTCGGGAG GCTGAGGCAG
93481  GAGAATGGCG TGAACGCGGG AGGCGGAGCT TGCAGTGAGC CGAGATCGCG CCACGGCACT
93541  CCAGCCTGGG TGACAGAGCG AGACTCCGTC TCAAAAAAAA AAAAAAAAAA AAAATTAAAA
93601  AAATATGAAG TTTTGAAGCA GAAATTATTT TGTCGTATGT TCTTTCATAA ATTTTTTGCC
93661  TGCCTGCCTT CTTCCTTTGT TACAGAACTC CAACACTTAC CCAAAGGTAG CTGTTGGGTC
93721  AGGGTTTCTG TACTATAGTC CCTTCTGTGG TGGCCAGAAA TATGTTACAG GAAAGAGGTC
93781  CCCATCCAGA CCCCAAGAGA GGGTTCTTGG ATCCCGCGCA AGAAAGAGTT CAGGGTGAGT
93841  CCGCAGTGCA AAGTAAATGC AAGTTTACTA AGAAAGTAAA GTGGTGAAAC GACAACTACT
93901  CCATAGACAG AGCAGGACAT TCCCGAAAGT AAGAGGAGGA AGGCATCCAC CCTAGGTACA
```

Figure 9 (Page 29 of 74)

```
93961   ATACTTGTAT ATATGGGGAG ATGTGCTCTG CTACAAGTTT GTGATAAAGG ATTAATTTTC
94021   TTAGTTACTA TATTTTGCAA GAATCAACAT TATTATCTTT AAACAAAATT AAGAATGCCT
94081   TTGTTCTCCA GATATAGGGA TATCTGGACA CTCCTAAGTC TGAGTCTGTT TAGTAAACAT
94141   TATTTATTTG TTCCCTTAAC CGTAAACATC TAGAAGCTAG GAATGACTGA CTTTCTGGGA
94201   ATGCAGCCCA GAAAGTCTCA GCCTCATTTT CCTAGCCCTC ACTCAAAATG GAGTTACTCT
94261   GGTTCAAGTA ACTCTGACAC TTTTCTTCTC TTTTTTTCTT CTTTTTTCCT TCCTTTATTT
94321   TTTATTTTTT ATTTTTGAAA TAAGAAATCA AGAATACTTG ATGTTTCATC TAAAACAATA
94381   CCCATAATTG ATAAGCCAAA ACAAAAACCT AGGTCTTCTA ACTCAAAACT AGGATGTTTT
94441   GCTGTCTCTG CTGATACTCG GCTGATCGTT AATAGGTAAT TAACAAACAA GCCTTGCTAT
94501   GTCCCCCTCA GTTTATTACC ATTAGATCAT ATGCCTACTG TCAATCATAT TAATCCACAA
94561   CTATGCATTT CACAAAACTT GCCATAAAAA TTCACAGGTT TCCCGCTTCC CTCGAGTTTT
94621   CATTTCCGAA GGGTCCCATG TAATATAAAA CTTATATTAA ATACATTTGT ATGCTTTTCT
94681   CTTGCTAATC TTTTTTTTTG TTTTTTGAGA CTGAGCCTTG CTCTGTCACC CAGGCTGGAG
94741   TGCAATGGCG CGATCTCGGC TCACTGCAAC CTCCGCTTCC CAGGTTCAAG CGATTCTACT
94801   GCCTCGCCCT CCCGAGTAGC TGGGACCACA GATACGTGCC ACCATGCCCC GCTAATTTTT
94861   GTATTTTTAG TAGAGACAGG GTTTCACCGT GTTGGCCAGG ATGTTCTCAA TCTCCTTACC
94921   TCGTGATCCG CCCGCCTCGT CCTGCCAAAG TGCTCGGATT ACAGACGTGA GCCACTGCAC
94981   CCGACCAATC TGTCTTTTTG TAGAGGGGCC TCAAGCATGA ACTTACTGAT GGGTGAGAAA
95041   AACAGAATTT TCTTTTCCCC TACAATATAA ACATTAATTG TAATGTTATC ATTCAGGACA
95101   TTTTGGTGAC CAATCTTACA GAAATTTTAT CTTGTGCAAG TCTATGCAAA CCAATATGTA
95161   AATCTTCTAT AAGTGAGATT GTATTTCACT TTTCTAGTAT CCTTTTAAAT TAATAAAAGA
95221   GATTCTAATG ATTATTTTCA TTACTGCATT TCATTGTAGG GAAGTAGATA ATTGCCCTTT
95281   ATTCACTGAC CTTCGCTTTT TAAAAATTTA AACCATGTTA CCATGAAAAT GCTTTTCAGT
95341   ATTTCTCTAC ACACAAGATT GCTGTAAGGG CAAAAATAGA GATAGGAATC ATGCATCCAT
95401   TGATATACAT ATTTTGATTT TTAATACATG TTACCAAGTT GCCTCCTGAA GGTCTGTTTA
95461   CACTCTCACC AACAGGGTGT TTTTTCCTGA CTTCCACAAA TGCTCTTGAA CAGTGGGTGT
95521   GTTAGTCTGT TCAAATTGCC GACATGAACA ATTAAATCTC ATTGTTGTTT TTATTTTTAA
95581   GACAATTATT GTTTGAGACT GCACATTTTG ATAATAACAT TTCTTCTATT ATGGTTTGAT
95641   TACTCATGAT TCTTGCCCAT TTTCTTTTGG GATGTTGCCT TATGTACATT ATTTTAAATA
95701   GATAGCTCCA TGTATTAAAA GATTATTAAG TTTGAGGGCT TATGATATGT CAGTTACATT
95761   TCTAAGATTT TTTTTTTTTT TTTTTTGAGA CGGAGTTTCA CACTTGTTGC CCAGGCTGGA
95821   GTGCAATGGT GCGATCTCGG CTCACCGCAA CCTCCGCCTC CAGGGTTCAA GCAATTCTCC
95881   TGCCTCAGCC TCCCCAGTAA TTGGGACTAC TGGCAAGCGC CACCACGCCT GGCTAATTTT
95941   GTATTTTTAT TAGAGATGAG GTTTCTCCAT GTTGGTCAGA CTGGTCTCGA ACTGCCGACC
96001   TTGGCTTAAA AATCTACATT CTTTTTTTAA TTATAAAACT ACCACATCCC CCAAAAACAT
96061   TACTAAGGAA TTGAGGCTGC AGTTTAAGAA GCTGATATTT AGGATCTATC TCCGGAGAAG
96121   TGAGACCTGG TAATATAAGC ATTTTCAAAA TGAACTTTTG GGCCAGGTGA GGTGTGTCAT
96181   GCCTGTAATC CCAGCACTTT GGGAGACCTA GTCAGGCAGA TCACTTGAGC TCACAATTCG
96241   AGACCAGCCT GAGCAACATG GCGAAATCCA GTCTCTACAA AAAATTAGCA GGGCGTGGTG
96301   GCATATGCCT ATAGTTCCAG CTACTATAGA GGCTGAGGTG GGAGGATTAC TTGAGCCCGG
96361   GAGGCAGAGG TTGCAGCAAG CCAAGATCGC GCCGCCACAG CCTGAGCGAC AGAATGAGAT
96421   ATGCACCCAC GCCCTAAAAA AAAGCATGAC TCATTAAAAA AAAAAAATTT AGCCGGTCGC
96481   GGTGGCTCAC GCCTGTAATC CCAGCACTTT GGGAGGCCGA GGCGGGCGGA TCACGAGGTC
96541   AGGAGATGGA GACCATCCTG CTTAACACGA TGAAACCCCG TCTCTACTAA AAATACAAAA
96601   TAATTAGCTG GGCGTGATGG TGGGCGCCTG TAGTCCCAGC TACTCGGGAG GCTGAGGCAG
96661   GAGAATGGCG TGAACGCGGG AGGCGGAGCT TGCAGTGAGC CGAGATCGCG CCACGGCACT
96721   CCAGCCTGGG TGACAGAGCG AGACTCCGTC TCAAAAAAAA AAAAAAAAAA AAAATTAAAA
96781   AAATATGAAG TTTTGAAGCA GAAATTATTT TGTCGTATGT TCTTTCATAA ATTTTTTGCC
96841   TGCCTGCCTT CTTCCTTTGT TACAGAACTC CAACACTTAC CCAAAGGTAG CTGTTGGGTC
96901   AGGGTTTCTG TACTATAGTC CCTTCTGTGG TGGCCAGAAA TATGTTACAG GAAAGAGGTC
96961   CCCATCCAGA CCCCAAGAGA GGGTTCTTGG ATCCCGCGCA AGAAAGAGTT CAGGGTGAGT
97021   CCGCAGTGCA AAGTAAATGC AAGTTTACTA AGAAAGTAAA GTGGTGAAAC GACAACTACT
97081   CCATAGACAG AGCAGGACAT TCCCGAAAGT AAGAGGAGGA AGGCATCCAC CCTAGGTACA
97141   ATACTTGTAT ATATGGGGAG ATGTGCTCTG CTACAAGTTT GTGATAAAGG ATTAATTTTC
```

Figure 9 (Page 30 of 74)

```
97201   TTAGTTACTA TATTTTGCAA GAATCAACAT TATTATCTTT AAACAAAATT AAGAATGCCT
97261   TTGTTCTCCA GATATAGGGA TATCTGGACA CTCCTAAGTC TGAGTCTGTT TAGTAAACAT
97321   TATTTATTTG TTCCCTTAAC CGTAAACATC TAGAAGCTAG GAATGACTGA CTTTCTGGGA
97381   ATGCAGCCCA GAAAGTCTCA GCCTCATTTT CCTAGCCCTC ACTCAAAATG GAGTTACTCT
97441   GGTTCAAGTA ACTCTGACAC TTTTCTTCTC TTTTTTTCTT CTTTTTTCCT TCCTTTATTT
97501   TTTATTTTTT ATTTTTGAAA TAAGAAATCA AGAATACTTG ATGTTTCATC TAAAACAATA
97561   CCCATAATTG ATAAGCCAAA ACAAAAACCT AGGTCTTCTA ACTCAAAACT AGGATGTTTT
97621   GCTGTCTCTG CTGATACTCG GCTGATCGTT AATAGGTAAT TAACAAACAA GCCTTGCTAT
97681   GTCCCCCTCA GTTTATTACC ATTAGATCAT ATGCCTACTG TCAATCATAT TAATCCACAA
97741   CTATGCATTT CACAAAACTT GCCATAAAAA TTCACAGGTT TCCCGCTTCC CTCGAGTTTT
97801   CATTTCCGAA GGGTCCCATG TAATATAAAA CTTATATTAA ATACATTTGT ATGCTTTTCT
97861   CTTGCTAATC TTTTTTTTTG TTTTTTGAGA CTGAGCCTTG CTCTGTCACC CAGGCTGGAG
97921   TGCAATGGCG CGATCTCGGC TCACTGCAAC CTCCGCTTCC CAGGTTCAAG CGATTCTACT
97981   GCCTCGCCCT CCCGAGTAGC TGGGACCACA GATACGTGCC ACCATGCCCC GCTAATTTTT
98041   GTATTTTTAG TAGAGACAGG GTTTCACCGT GTTGGCCAGG ATGTTCTCAA TCTCCTTACC
98101   TCGTGATCCG CCCGCCTCGT CCTGCCAAAG TGCTCGGATT ACAGACGTGA GCCACTGCAC
98161   CCGACCAATC TGTCTTTTTG TAGAGGGGCC TCAAGCATGA ACTTACTGAT GGGTGAGAAA
98221   AACAGAATTT TCTTTTCCCC TACAATATAA ACATTAATTG TAATGTTATC ATTCAGGACA
98281   TTTTGGTGAC CAATCTTACA GAAATTTTAT CTTGTGCAAG TCTATGCAAA CCAATATGTA
98341   AATCTTCTAT AAGTGAGATT GTATTTCACT TTTCTAGTAT CCTTTTAAAT TAATAAAAGA
98401   GATTCTAATG ATTATTTTCA TTACTGCATT TCATTGTAGG GAAGTAGATA ATTGCCCTTT
98461   ATTCACTGAC CTTCGCTTTT TAAAAATTTA AACCATGTTA CCATGAAAAT GCTTTTCAGT
98521   ATTTCTCTAC ACACAAGATT GCTGTAAGGG CAAAAATAGA GATAGGAATC ATGCATCCAT
98581   TGATATACAT ATTTTGATTT TTAATACATG TTACCAAGTT GCCTCCTGAA GGTCTGTTTA
98641   CACTCTCACC AACAGGGTGT TTTTTCCTGA CTTCCACAAA TGCTCTTGAA CAGTGGGTGT
98701   GTTAGTCTGT TCAAATTGCC GACATGAACA ATTAAATCTC ATTGTTGTTT TTATTTTTAA
98761   GACAATTATT GTTTGAGACT GCACATTTTG ATAATAACAT TTCTTCTATT ATGGTTTGAT
98821   TACTCATGAT TCTTGCCCAT TTTCTTTTGG GATGTTGCCT TATGTACATT ATTTTAAATA
98881   GATAGCTCCA TGTATTAAAA GATTATTAAG TTTGAGGGCT TATGATATGT CAGTTACATT
98941   TCTAAGATTT TTTTTTTTTT TTTTTTGAGA CGGAGTTTCA CACTTGTTGC CCAGGCTGGA
99001   GTGCAATGGT GCGATCTCGG CTCACCGCAA CCTCCGCCTC CAGGGTTCAA GCAATTCTCC
99061   TGCCTCAGCC TCCCCAGTAA TTGGGACTAC TGGCAAGCGC CACCACGCCT GGCTAATTTT
99121   GTATTTTTAT TAGAGATGAG GTTTCTCCAT GTTGGTCAGA CTGGTCTCGA ACTGCCGACC
99181   TCAGGTGATC CACCCGCCTC GGCCTCCCAA AGTGCTGGGA TTACAGGTAT GAGCCACTGG
99241   GCCCGGCCAC ATTTCTAAAT TCTTTATAAG TATAAATTCA TTCAATCTTC ACCAAAACTC
99301   AATGAAGTGT GAGTACTATT ATTATCATTG TTTTACAGAT CAAAACAAGT AATACAGTCA
99361   CTTACTGAGT TCTATACACC TGGTAATTTT TTTGTTTCGT TGTTCTATCA ATTATTGGGG
99421   AAGGGGTGTT GAAATCTCTA CCTTTAAATC ATGTATGTGT CTATTTCTCC TTTCGGTTCT
99481   ATCAGGTTTT GCTACACATA TTTTGCAGTT CTGTTATTTG GTGCATATAC ATTTAGAATT
99541   GCTTGTTTTT CGTATTGGAT TGACCCTGTT ATCATTATGT AATATCCCTG TCTGTTCCTA
99601   GTAATTTTCT TTGCTCTGAA ATATACTTAT CTGATATATC ATCCAAAAGA CCACCAGGAT
99661   GGCTAAAGAG TAGAAAGGAG AGATTTACTG GCAATACTAA TTTGCAAGCC AGGAAGAGAT
99721   GGTCCCAGAA CCTGCCAAAA TTACTCTCTC TTTGGGGAGA AGGAGCAGGT TGGTTATTTT
99781   TATGCCTCAT AGGCTATATA TTACACAATA GAGTCATACA TATTTAGCAC GTTTGGGGGG
99841   ACAGCTATAT ATATTATGAG GGGTGCCAAG TGCATTCACA ATGGATAAAC ACGTGTAATA
99901   TACCTCCCAT GTTCACTTCG AGGTTAAATT TTGGTTAAAA TGAGGTAGAA TTTAGGTCTT
99961   TACATCACAA GGTGAACTAT AGGAACAAAG TTTACGTGCT GCCTCTAGCA GCTGGCTGAA
100021  AATGGCTTAA GGTCTACAAT TACGTGTAAG AATAGAATGT GTGTCAAGGC GGTCCTCTGT
100081  CCAATCAGAG TTGTAGTGGA CTGGACTGTA AATCAGAGTT AGGAGGGCTT CTGATAGCTC
100141  CTATAGTTAA GGAATTTAGC AAGTGTGAGT TTTTTGGTAG TCTTTGGAAT TTAGGAATTT
100201  GCCATGCCAG CCAAGCCATG AATGCTCTAC CAGTAGGTAA CTTTGTTTGC TTAATCTTAG
100261  AGTCTGTCTT AGTTGGTATA GGGGCATCTA TTTTGGTCTT TCAGATCCCA GATATTATTA
100321  ATACAGATAC TCTTGCAGTT TTGGGCTGAT GTTTATATGG CTTATCTTTT TTGCAGCCTT
100381  TAATTTCAAC CTGCGTTATG TTTATATTTG AAGTGAGATT CTTGCAGACA GTGTACAGTT
```

Figure 9 (Page 31 of 74)

```
100441  GTTGTTTTTT TTTTTTTTGA GATGGAATTT CACTCTTGTT GTCCAGGCTG GGGTGCAGTG
100501  GCACAGTCTC AGCTCACTGC AACCTCCGCC TCCTGGGTTC AAGGGATTCT CCTGCCTCAG
100561  CCTCTTGAGC AGCTGGGATT GCAGCCATGC GCCACCACAC CCGGCTAATT TTTGTATTTT
100621  TAGTAGAGAC AGGATTCACC ATGTTGCCCA GGCTGGTCTC GAACTCCTGA CCTCAAGTGA
100681  TCCGCCAGCC TCGGCCTACC AAAGTGCTGG GATTACAGGT GTGAGACCTC GCGCCCAGCC
100741  AAACTGTTTT TTTATGGGTG TATTTATACC ACACACATTT AATGCAATTA TTGATATCTT
100801  AGGGCTTAAG TTCATGAAGG GTAGTGTGGG AACCATAGTC TCTTGGCCCA CTAAATGTTT
100861  GCCAGAAATC ACTGACAAGG CAGATTGATT AATAGGTGAA AAGGCATTTT ACCTATTGTT
100921  TAACGTGTCT ATGTGGGAGC ATTCAGAATT AATTACCTAA CTTCCCAATG AGTTATAGAT
100981  GCTTATATAC CATTTTTAGA TCACAGAAAG AATTGGGGCT TAGATTCTGG TAAAACAGGT
101041  TATGGGAGGC AAAAGAGGTT TGGCTTGCAA AGGTGGCCTT GTTAGGTAGG TGAAGCCTCC
101101  CTCAGAAAGA ACAGATGGTA AATGTTTCTT TTATGATTTT TAAGTGTCAG ACTCTCAGTC
101161  TCTCCTGGAT CTGGGGAAAG GTATAGAAAG GTGAGGAGGC ATGGCTGCAT TAATGGAGAT
101221  TCTCTACAGA TGTAAAATTT TTCCCATTTA AGGCAGCTTT GCAAGCCCAT TTCTGCCTGC
101281  TGGCCAAGCA GCAGCCATTT CAAAATATGT CAAAGAAATA TATTTTGGGG TAAAATATTT
101341  TGATTTCCTT TAGACTGGTG GCCTTATAAG AAAAGGAAGA GACACCTGAG CTGACACACA
101401  TACCCTTGCT CTCTCAACAT GTTATGATGC AGTAAGAAGG CCCTCACCAG ATACTAATTC
101461  CATGCCCTTA GCTTCCCAGG TTCTAGAACA GTAGGAAATA AATTTCTTTT CTTTAAAAGT
101521  TAGCCAGTCT GTGGTATTCT GTTATAGTAT CACAAAATGG ACTAAGTAAC TATATTATGA
101581  TCATCTTACA TGACTGATCC CTCCTACATC ATACACATAC ACAGGCCACA TTTGGAACAT
101641  TGTTAGAGGT TCCTCTACCC AGTACAAATG TACTACAAAT TATATATGTA TTTTTAAATT
101701  TTTGAGTATC TTCAATAGTA TATTTTCGTT AACTTTTGTA GTCAAAATGT CATTATAACA
101761  TGTATTCAAT ATGCATAATT ATTAGTCAGA TGTTTTACAT TCTTTCTTCA TACTAAGTGA
101821  TATGGTTTGG ATATTTGTCC CCTCTAAATC TCATGTTGAA ATGTAATCTC CAATGTTGGA
101881  AGTGAAGCCT GGTGAAAGGT TTTTGGATCG TGAGGGTGAA CCCCTCATGA AGCGCACTCT
101941  TCAGGGTAAT CAATGGGTTC TCACTTTGAG TTCACAAGAG ATCTGGTTCT TTAAAAGAGT
102001  GTGACACCTC CCCCATCTCT CTCGCTCAGC TCTCACCATA TGATATGCCT ACTCCCTCTT
102061  CACCTTCCAC CATGATTGGA AGTTTCCTGA GGACTTGCCA GTAGCAGATG CCTGCACCAC
102121  ACCTCCTGTA CAGCCTGCAC AACCGTGAGC CAAAAAAAAT TACTTTTCTT TATAAATTAG
102181  TCAGTTTCAG GGATTCCCTT ATAGTAATGC AAGAACGAAC TAACACACTA AGTCTATTTC
102241  ATATTTACAG AATAGCTCAA TCTGAAGTAC CCTTTTTCAA CTTCACAGTA GCTACTTGTA
102301  GCTAGTGGGC ACTGATTTGG AGCGTGTTCA AGGGTGAATT GTATTATGCA ATTAACAGAT
102361  TTTTTTTATT GTTTTCGCAA ACCACGAGGC ATAGATTGTC TTACTTTCTC TGCTCCTGGT
102421  GTTGGAGTTG TTATTGGGAA ACAACTTATT TTCCTCTTAT ATTTATATGG AATAAATAAC
102481  CCCCAATATT TCCCTCCCCA ATATCTGCCT TTTGTATGTT TTTTGAAGGC AAGTGCCTAG
102541  AATTTACTGT TTTTGAAGCA CTTACTGAAA GGATTGCCAT CAAGTTGTTT TGCTAATAGT
102601  ACATGCCAGG CGCTTGTTGG TTTGCTTAAT TCAAGGTAAC TTGGATGAGA AGAAGAGTTT
102661  TTCTCATCCA TGGCTCAGTG GAGTATAGAT TACTGATATT GTGACTGGAT GTACTCCTGC
102721  TTTCTAGTCT GAGTTTTTGA AGCTACCCTT AATCTTGGTT TCAATTTTAT CTAGCCCTGT
102781  ACATATCCAA GGCTCTTTCC AAAATGGTCT ACGATTTGTT TAGGAAGTTA GAATAGCTGT
102841  ACTTTCTGAA CCACGGTTCC TGACATTTTC TGGACTTCAA ACACATCCAG CATTTTATCG
102901  AAGTATTTAT CCTTCCTACT TGGCTGGCTT CTTCCTTGCC TTCAGGTCTG AATTCAAATG
102961  ACATTCTCCT GATGAAACTT TCCATCCTTA TTTCTATTCT TTTTTCTTAT CCCCTTTCTT
103021  TATTTTTCTC CACAGCACTC ATCACTTATC TCTACATTTT CATTATGTAT TTACCTTATT
103081  GTGCACCTCC CACTACAAGA CAAGTAGCAC CGTAAGGAAA CAGGTTGTCT GCTTTTTCAC
103141  TGCTATGCTC CCTGCACCTA GAACACTCTC TGGCACTTAG CAGGTTTTCA GTAAATATAT
103201  GCTGAACTAA TAATGCTGGA TATACATCTC CCTCATGAAC TCTCTAAATC CTTCTAATTT
103261  ACATTGATCA ATCTTCTTTT CCATGTGCTT TTGTATGATT TATTGCTCAA AATCTTTATT
103321  TTGTATGCAG AACGTGCACT GCTATTTAAT CTTCATGTAC GTAAGTCCTC CCTTCTCTGA
103381  GTATAATCTC TTCAGGGCAC TATCTGAGAT AACTTTTTAA CATCTCCATC ATGAATCTTG
103441  TACCTTTTCA AAGAAAATGA GCCAGTGATT ACTGATGTTT ACGGCTATTG TTGAGGGTGA
103501  AGATCATTAT AATTTTGAAA AGGGAAGTTG AATATTGTGA AGGGAAAGAT AACACTAGAG
103561  TCAGAAGACT TGGGAGAAGG CAAAAAACAA ACTAAAAATG AGCACTTTTA GTCTCCTGAC
103621  AGTTTCTCTG AATCAAATCC ATAGTTCTGT GACAGCGTTG GCTTAGAAGC AGATTTTTTT
```

Figure 9 (Page 32 of 74)

```
103681  TTTTTTTTTT TTGAAATGGA GTTTCGCTCT TGCCCAGGCT GGAGTGCAGT GGCACGATCT
103741  CGGCTCACTG CAACCTCTGT CTCCAGGGTT CAAGCGATTC TCCTGCTTCA GCCTATGGAG
103801  TAGCTGGGAT TACAGGCTCC CACAACCACG CCCAGCTAAT TTTTTGTATT TTTAGTGAAG
103861  ACTGGGGTTT CACCATGTTG GCCAGGCTGG TTACGAACTC CTGTTCTCAA GTGATCTGCC
103921  CGCCTTGGCC TCCCAAAGTG TTGGGATTAC AGGCATCAGC CACCGTGCCC AGCCAGGAGC
103981  AGATTTTTTT ACACTCATGT TTCTTTTTCC TTCTGTCATC CTGTTTCAGT ATAAGCAGAC
104041  CACAGATAGA AGTAGTAGAT ACCTCAGAAA TTCCTGGAAT AATTAATCCA CGTTCATCTG
104101  TACTCCATCT GCTCCTATCT CATGGAATAT AAAAGGAAAA ACACCAAGAT TTCCCTAGGC
104161  AATCTGTCTT GATTTTAGGT TCCTCAACAG GAGAGCCAGA CAATGGCTGT AATAATATTG
104221  TCCCGGCCAA GGAAAAACTT CCCCTTTGCC CTCCCAAGGT TTATGGAAAA TTACTGGCAA
104281  AACACAGATT AACTGGAGAA AAGGCATATA TATTTATTTC ATCACAATTT TACAGGAGAT
104341  TTTAGAATTA AGACTGAAAG ATACAGGGGA AATTGCCCAT TTTTATGCTT AGGTTCAACA
104401  AGATAAACAG CTGTATAGGG TACGATCTAA TGCTAACAGA CTGAGTGGGG AAGCCCCGCA
104461  AGGCTTGTCT GTCAAGATTC TTCTTGACCT CTCAGTGCAG CATTTCTTCC TTCTGGTTAT
104521  AGGACAAGAC TCTCTTTTAG AATGGGGGGT CTTATGACCT ACAGGCAAAC AAGGTAGGTT
104581  AGAGTAATAT TTTTAGGTTT TATGGCTGGT TCTAGGGAAA AGGAGTTCTG GTTTGTATGG
104641  CCTACCTTGA GGAGGAATTC TGGTTTCTAT GGCTAGACTT TGGGGAGAAT GGGACTTACA
104701  GACAGGAAGG CAGAAGGTGG TCAGTGAAAC ACTTTTATAA TCATAATCCC ATTTTGAGTA
104761  TTTCTGTGTT ATGGAATGTT TGTTCTCTCA TTTCCTGAAA GATTCCAGAG ACTCCTCATT
104821  CAGTGTTGTG AAAAAGTTCA GGAAATGCAA CTCAAAAATG TGCCACTTTG TTACGCTGAT
104881  TTCTTTGAAC TGAGGGCACC TAGGAAACAG TAAATTCAAG GAAGGGCTTT CGCTGAACTC
104941  TAATCAAAAA TTTGAAAATT AAAAAAAAAT TCAAAAAGGA ATTTAGTTGT TAAGATTCAC
105001  TTCCCTGGGG AATCTCATCA ACCAGAGAAG ATTAACTGTA TCACAGGAGA GGAGACTGGT
105061  GGTTAACACC ATCTAAACAG ACTTTGTCAC AGCTGTCACC TATTCTTTGA AACACCCATT
105121  TATTTTTCTC CAAAATCATA TACTCTCCCC TAAGTTGCCT ACATCCCCCT TCTTTCTCCC
105181  TTATGAATCA AGAGAGCTTA TAAGCTTCTA CAGTTCACTG GGATTTGGGG TATTCGCTTT
105241  TCTTCCCTCC CACTCCCCCT CCCCTTTTTT TGTCTTTGAG ACACAGTCTT CTGGCTCTGT
105301  CGCCCACGCT GGAGTGTGGT GGCTCTATGT GAACTCACTG CAACCTCCTC CTCTCGGGTT
105361  CAAGCGATCC TCCCACCTCA GCTTCTCGAG TAACTGGAAC TACAGGCGTG CACTACCAAG
105421  CCCGGCTTTT TTTTTTTCTT TTTCTCCCCC GTTTCTTTTT TGGTTATTTT ACTGGAGACA
105481  GGGTTTCTCC ATGTTGTCCA CGCTGGTCTC GAACGCCTGA CCCGCCGTCC TCGGCCTCCC
105541  AAAGTGCTGG TATTACGGGC ATGAGCCACT GCGCCCGATT TGAAGGACCT CTTAAATATC
105601  TATTTAGAAA TTGGTCGGAG TCCACTCCTT TCCAAAAACA TGAGTCACAA TCCGGGAAAA
105661  GCACGAGCGG CTGAAAGTCA AAATAACCAG AACAAAACCT CCACTCATGC TTAAAAAAGG
105721  TATTTTGACA AAATCCTAAT TCGGCCAATT ATTATTAGTA TTCAAGTCGA AGGCTCGTCA
105781  AGCCAGACTG GGGATTGGGT CAAACATAAA CCTTACACCA GACGGAAGGA TTACATGCAA
105841  ATGAAGGATG CAGATTCTGA TTTCCCATTG GGTATTTGAC ATTAGCCAAT GGGAGAATTC
105901  CTCACAGCCT ACCTCCAGTC AGTATAAATA CTTCTCTGCC TTGCGTTCTA ATGTAGTTTC
105961  ATTACATTTT CTTGTGGCGA TTTTCCCTTC TTATCAGAAG TAGTTATGTC TGGTCGCGGC
106021  AAACAAGGCG GTAAAGCTCG CGCCAAGGCT AAGACTCGGT CTTCTCGTGC AGGTTTGCAG
106081  TTTCCTGTGG GCCGAGTGCA CCGCCTGCTC CGCAAAGGCA ACTACTCCGA GCGCGTCGGG
106141  GCTGGCGCGC CGGTGTATCT CGCGGCGGTG CTTGAGTACC TGACCGCCGA GATCCTGGAG
106201  CTGGCGGGCA ATGCGGCCCG CGACAACAAG AAGACCCGCA TCATCCCGCG CCACCTGCAA
106261  TTGGCCATCC GCAATGACGA GGAGCTTAAT AAACTTTTGG GGCGTGTGAC CATCGCGCAG
106321  GGTGGCGTTT TGCCTAATAT TCAGGCGGTG CTGCTGCCTA AGAAAACTGA GAGCCATCAT
106381  AAGGCCAAGG GAAAGTGAAG AGTTAACGCT TCATGCACTG CTGTTTTTCT GTCAGCAGAC
106441  AAAATCAGCC TAACAGCAAA GGCTCTTTTC AGAGCCACCT ACGACTTCCA TTAAATGAGC
106501  TGTTGTGCTT TGGATTATGC CGCCCATAAA GATGTTTTTG AGGTGTTTTT AATGGCTTTG
106561  AGTGTGGCAC TTTTAGTAAT TTGTCCTGCA GAAATTAGAT CCATAGAAAC CTCAGGAATT
106621  CTAGGTATGT GGGAGAAGTG CCATGCAGCA CAAAACATGT TTACAGGGGT GATTCGCGTT
106681  AAGTTTCACA CACAGCAGTT ACTACATTTT AGAGGAAGGA AATTATACCC ATGAGTGCAT
106741  TCCTAACTAT CTTGAATGGA AGTGTTAAAA CCCGCATGCC CCACACAAGT TTGAATATGT
106801  CATACCATTT GCTGTAGCAA TTAATGGCAT ACACAATTGA GAGCACACAC ATTACCACTG
106861  AACATTTGAG TATGTATTTC CCAAAATGAG CTTTTTTCCA GTTTGGGGAT GTTTTGCTTT
```

Figure 9 (Page 33 of 74)

106921 GTTTTGGGGT GGAGTCTCCC TCTCGCCCAA GCTGGAGTGC AGCGGCGTGA TAACAGCTCA
106981 CTGTAACCTC GAACTCGGGC TCAAGCGATC CTCTTGACAG CCTTCTGAGT AGCTGGGATT
107041 ACAGGCGAGA GCCGCCACGC CCGGCTAAGA GCATTTTTCT AATTGCCCAC ACTTCTTATG
107101 CGACACCCAG AAAAATACAA TTTTAAATAA AGCGCATATG CAAATTTCCC TAATCGTCTC
107161 CAATATTCTC TGATTTCTTT TTTATATTTT AACTAGAAAC AATTGGAGGT TTCCGCGTTG
107221 CTTTGTGTGG TTGTAAATTT TAAGACTTCA GGAAACTTTT CCAGTACAAG ACTTGTCCAC
107281 AGTGGATATA GCAGCTAAGG GGTTAACAAA ATGACGTCAG AGTAGCTACG GTAATGGGCA
107341 GGAGCCTCTC TTAATCTGCA ACCAGGCACA GAGATGGACC AATCCAAGAA GGGCGCGGGG
107401 ATTTTTGAAT TTTCTTGGGT CCAATAGTTG GTGGTCTGAC TCTATAAAAG AAGAGTAGCT
107461 CTTTCCTTTC CTCCACAGAC GTCTCTGCAG GCAAGCTTTT CTGTGGTTTT GCCATGGCTC
107521 GTACTAAACA GACAGCTCGG AAATCCACCG GCGGTAAAGC GCCACGCAAG CAGCTGGCTA
107581 CCAAGGCTGC TCGCAAGAGC GCGCCGGCTA CCGGCGGCGT GAAAAAGCCT CACCGTTACC
107641 GCCCGGGCAC TGTGGCTCTG CGCGAGATCC GCCGCTACCA AAAGTCGACC GAGTTGCTGA
107701 TTCGGAAGCT GCCGTTCCAG CGCCTGGTGC GAGAAATCGC CCAAGACTTC AAGACCGATC
107761 TTCGCTTCCA GAGCTCTGCG GTGATGGCGC TGCAGGAGGC TTGTGAGGCC TACTTGGTAG
107821 GGCTCTTTGA GGACACAAAC CTTTGCGCCA TCCATGCTAA GCGAGTGACT ATTATGCCCA
107881 AAGACATCCA GCTCGCTCGC CGCATTCGCG GAGAAAGAGC GTAAATGTAA AGTTACTTTT
107941 TCATCAGTCT TAAAACCCAA AGGCTCTTTT CAGAGCCACC CACTTATTCC AACGAAAGTA
108001 GCTGTGATAA TTTTTTGTTG TCTTAACAGA ACAAATTTCT AAGGACCCCC CCGGAAAGCA
108061 TTAGACTATG GTCTTAAAGT TGATTAACAG AAATAACGGT TTGGTCAGTC TTGCAGTGTA
108121 GGTTATTTCT GACCTTATTA AGGTGCTATT TGGAGAGAAG CTGTGTAAGT CCACTATCAT
108181 TCAGGCCTCT AGCTTGCTAT GATTAGCATT TGTTTAAACA ACTTTGTAAG AGTAAGGGAA
108241 AAATCTGGTA AGTAGTTAAC TGGCGCTTAC TAGGCATTTT TGCAAAGCTT TGAAAAGATT
108301 AGAAAATTGT GTCTTGCGAG TTCCAGTGTC TTCCTCAAAA TGCTTAGGAA GATTTTCTCA
108361 GCTCAATACA TAGTCCCCTA GGTTTTCTCA TATATTATAT ATATATATAT ATATATATAT
108421 ATATATATAT ATATACTGTT AAATTCATTT GGCTGTTAAC ATTAACCTGA AATTTATTCT
108481 GGTGCAAAAT GTGAGGCAGG GATCTAACTG GCTCTCATTT TATCCATAGC TAGCTACCCA
108541 CTTTAAATCT GTCAGTCTGT CGACCAAGCA TAATTTAATC CCTTATATAT GAATTTTTAT
108601 ATGTGTGGCT TTGCTTGTAA ATAGTCTATC TGGTTGCATT GCTTTGTCTC CTCTAGGACT
108661 ATGCACCATG ACATGCCACA TTCTTTTTTT CAGTACTTCT TGCCTGTAGT TATTAAAATC
108721 TAGAATTTAC AAGTTTTAAC CATTTTCTTT CTGTTGATCT TGCTTTTCGG TTTTGGAGGT
108781 TGGGGATTGA GTACTGGAAG AAAATTTAGA GGGATGGGAA TACTGTACGC AAACAAAAGT
108841 AATATTTACT TTAAAATTTT TATATTTTGT ATTTTTTTAT CATATAGCTT TTACATCACA
108901 TTTTACAGAC TAACTTTAGA ACAACCACAG AATGTCCAAC ATTAAAACTA CTAATTCCAA
108961 AGACCTTGCC TCACATTCTT TTTTACAATA AATATTTTTT ACACCTAACA TTCTTTCTTG
109021 GCCTACATCT AGAATGTAAA CTGATGTACC ATACTAAAAT CGCCTGACCA ACTGTCAACA
109081 ACAACAAATC ACACACACAA AAGATCAAAT TTGAATTGCA TCGTTTACTT AAATTCATTT
109141 GTGTTCCAGC TTTTAATAAG GCAGTTTTTG GTTTATAAAG TAATATTTGC ATTTTAAAAA
109201 TTATGAAAAT GAATATGTCA GTTTGTTTTA TGATTCGTTT TTCTTGACTC TTATACAAGC
109261 GACTCTAACT GGCATAGACA TTTGTTATCC ACAGACAGTA TAGATATGTT AGAGATGCCA
109321 ATGGACTTGG TCTATGCCAA GGTGACTACT CACAAGCTCT GGGCCCAGCT GAAGGTCAAG
109381 TATTTTTTTT CCAGTTATAG ATGTGCTGGA TCTGATGTAT AGCGCTTGAC TTTTTATATT
109441 TTCTTTATCT GTAGGAAACA AATGTGTTGG AGGTACTGGG TCTGACGAAT AGCATAAAAG
109501 AATAAAGTTA CATTACTGTC TGAGGATCAG ATGGACAGGG GGTGGTAGCT CAGTCCAGCT
109561 ATTTTCCACT CCCTCACTTA CATTCTTTGC CCCCTCCTCA ACAGAACAAG GATTCTGCTG
109621 TAACTCTTCA TTGACAGTTG ATATTTAAAA ATTAACGAAT GGATGAAATT CTCATTTGTG
109681 AAAGAAAATT TATTGAGCAT TTTGTATTTG TGAGTAGTGC AAACATTTTA ATATTATATT
109741 AAGAATCTAT TGTTTTGTAT TAGAGGAGTA ATTAAGGAGA GATTGGAGAC AAAAAGGGGG
109801 TGTTGTTTGC AGAATATACC ATCCAAAAAT AGACCACTGT GGGATCAGGA TTCTTTTGAG
109861 CTAAAGGCAC TTCAAAAACA GCATTCAAGA AGGGAATTCT TCTAAACTTT TCTTTCTGAA
109921 AACAGGAGAT AAAAGTTCCA ATGTGAAAAA TGCTCTGCTT GTACCAGGTG AAAAGACATA
109981 TTCTTCAGCC CAGAGGCATA GATGAGATAA TTCTGCACAA ACACAGCAGG GAGTCATAGC
110041 CGAGAGACTT CTATACACAA ACAAACCTTG TTAAAATAAT CATATATTCC TTTAATCTCC
110101 TCATATGGTT TACTTTCCCA CAATTGCCTC TCTTTAACTT AATGTGAAAG CATTTAGCTT

Figure 9 (Page 34 of 74)

```
110161  TTGCCATTTC TTTGGGGCTT CACTTTTTTA TGAGGGTTCT CCTGTCCCAT AAAATTTACA
110221  TTAAATACAT TTGTATGCTT TCATTCTGCT AATCTGTTTT ATGGCAAATG AATTATCAGG
110281  TCCAGCTGGA GACCCTAACA GAGTAGAGGT AAAATTTTGC CTCCCTACAA GATAGAGATT
110341  GTGTGCATTA AATGTTGTTT GTTCCCAGTT GTTCAGTTTG TCAGGCCTCT GAGCCGAAGC
110401  TAAGCCATCA TATCCCCTGT GAACTGCACG TATGCCTCTA GATGGCCTGA AGTAACTGAA
110461  GAAACACAAA AGAAGTGAAA ATGCCCTGTT CCTGCCTTAA CTGATGACAT TACCTTGTGA
110521  AATTCCTTCT CCTGGCTCAT CCTGACTCAA AAGCTCCCCC ACTGAGCACC TTGTGACCCC
110581  CACCCCTGCC AGCCAGAGAA CAACCCCCTT TGACTGTAAT TTTCCACTAT CTACCCAAAT
110641  CTTATAAAAC GGACCCACCC CATCTCCCTT CGCTGACTCT TTTCGGACTC AGCCCGCCTG
110701  CACCCAGGTA GAATAAACAG CCTTGTTGCT CACACAAACC CTGTTTGATG GTCTCTTCAC
110761  ACGGACGCGC CTGAAACAGT TTAACAGGGT TTTTCCTGCC CAGTCACAAC AAAGTGATGT
110821  TATGCTGCAG GCTGAAGTTT ACAGCTAATG CTGTTGAAGT CTAAAATCAG TTTTGGTTTG
110881  TTAGATTTGG GTGAGATGGC TAAGATTCTC AGAGAAAGAA GTCAAGTTTG GGGTGCATTT
110941  TTCAGACTTA AAAATTTAGC AGTAGCCCTT GCAGTTTTTC CAATAGAAGT GATTTACGAA
111001  TGTTTTCAGG AAATTTAAAA CAACAGTGAG AAGCGTGTAT GGAGAGTTGA ACTACACTCC
111061  AGACTTGGCT ATAGGAAAGC ACGAATGCTG CTATTGTATT GCACCTTGGA AAAGAGAACA
111121  AAGGAATATT TTCGGACAAT TTTAACATGT CACATATGAA AAGCTAAACG GAATCTGTCA
111181  ACACCTTGTA CGTTATTACA GGCTGTGATT TTAAAAAAAC AATCCTTACT AATACATACA
111241  TAGTTGCTGC TAGCAATATA GTGTTGGGAG TAAAAACACG AAAATGAGAG TTCAGGACAA
111301  TATCCCAACT CTGAGCAGAT TTTTTTAAGT AGTAACATCT AAAATTAAAC CATATTATGT
111361  AATATTTATT TCTTTTCCAC AGTCTCTTCT CATGCCTCGT TCACATTAGC TAATTAAAAG
111421  TCCCCTGAGT ATCATCATAA CCCGATTTAC AGATGAAGGC ACGGTTGCAA TGAGCTATCA
111481  CCCTCTTCTG AATGAGACAG TACAGTGTGA AGGATAGCAA AACTCCACTC CCATCCTCTT
111541  AGGGCTCTGG CTGGACCAGC AAATTAAATT AATGTAAAAT GGATTAACAG GAGAAAGGTA
111601  TATGCATTTA TTTAACACAG GTTTTACGTG ACACAGGTGC TCTCATAAGG TAATGAAAGC
111661  CCAAAAAAAG CAGTTAGCTA CTTATATAAT GAATTGGACA ATTAGTAAAA TGTAAAAATG
111721  CGCTAAAGCA AAGGGATTTA GGCTAGAATA TATAACTGTG TAGAGAAGCG CCCAGCAAGG
111781  GCTAGTGCAA GGTTTGTACA GAATTCTCTT GGCCTCAGCC TCCTATCCTT GAGAAGAATG
111841  TTGCTTTTTT TAAACTACAG TGAGAACATC TTTCATATGA GAATTTCACC TACTGCTTCT
111901  AAGAAACAGG TCAGCTTTCA AGAAAACATA AGGCCAGAGT GATCTTTTCA CGCCTGCTCT
111961  TTTAAGTACC TTTGAATAGT CAATATGTCT TCAAGCACTT GAAAGACTTA AAAAGTTTAC
112021  CACTCCGGCA TATTAGTGAA AGCCCTTAAT ATAAGCCCTT ATTAAAATTC TCAGTCGAGG
112081  GTATAAATTC AGATTCAAAT AGTAGTGTCG TAAACGGGAG GGAAAAACTA AAGGGATTAA
112141  AAAGTGAAAC TATTGTGTTC TCCCTCGCAG TCCTTAGGTC ACTGCCCCTC GAGGGGCGGA
112201  GCAAAAAGTG AGGCAGCAAC GCCTCCTTAT CCTCGCTCCC GCTTTCAGTT CTCAATAAGG
112261  TCCGATGTTC GTGTATAAAT GCTCGTGGCT TGCTTTCTTT TCGCGTACCT GGTTTTTGTT
112321  GTCAGCTGGT TAGACATGTC TGGTCGCGGC AAAGGCGGTA AAGGTTTGGG TAAGGGAGGT
112381  GCTAAGCGTC ACCGAAAAGT GCTGCGGGAT AACATCCAAG GCATCACCAA ACCGGCCATT
112441  CGGCGCCTTG CTAGGCGTGG TGGGGTTAAG CGAATTTCCG GTTTGATTTA TGAGGAGACT
112501  CGTGGCGTTC TCAAGGTGTT TCTGGAGAAC GTGATCCGGG ACGCCGTGAC CTACACGGAG
112561  CACGCCAAGC GCAAGACTGT CACTGCCATG GATGTGGTTT ACGCGCTCAA GCGTCAAGGA
112621  CGCACTCTGT ACGGCTTCGG CGGTTAATCT TTTCGTCAGT TTTCTTCCAA TGGCCCTTTT
112681  TAGGGCCGCC CACTCCCTCT CAGAAAGAGC TGTGATTGTA TTCTTTCGGA TGGTAACATC
112741  TCAATGGCTT TACTCGGCTA TTCTGCCTAG TATGTAGAAC TATTATAAAC CAGTTGGGAG
112801  AGACCAGGTT GTTTGGTCTG AGTGGCTGCT AAAGCAGAAA TCAGCTAAGT AAACGAGGTC
112861  TCCGAGATAA GTGAGCTATA AACTTCAATG CTATAGTTTT GACATGTCAA GCAACTTAAC
112921  GTGCAGCGCG AGTCCGATAA ATGAGTAGCT CAGCTTTTTA GTTTTAAAAA CGAGTTGTGC
112981  GTTATTTGTA CGAGAGCCTA AGATGCTAGC TGCCTGGAAC TGAGTAGGTG GATTAAAATG
113041  GGTGTCAGGT CTGTTTTCCC AGGCGTATCT GACTTAACGT CAGCAAAAGC TGTACTTTTA
113101  GCTTCCCTGG TAACACCTGC CGTCCTTAAC CGCCCCCTGC CGGTAGCGCC AGAAGCCTTT
113161  ACTTCCATTT CTAGTTGAGC TTGGCGTCCT GCTGAGTGAC GTCACCTCCC CCTTCTGTGG
113221  AGTAGGACTG GCGGTTAAAG CTGCTTTGCT ATTTTCAGTC CTCAGGCTGG AGGCTCCCCT
113281  AAGCAGGCTG CCTACGCAGT TCGTAAATTC CCACTTAGTA GACTAAGGGA GTCTGTTTTA
113341  TAAATAAGGA CTCAAATTTC TTCTGACTCC GAGGTCCGTG GCAGCAGCTA TAAGATGGAA
```

Figure 9 (Page 35 of 74)

```
113401  GCCCCCTCTG ATGTAAGATT CTCAGATGAC TTGCATCTTC ACTGTACCTG TCAACCCAAT
113461  AGTCTTCTAT TCCTGCCTTA AATTGTAAAT TCCAAAACTG ATTTAATTGT GAAAGTTTCA
113521  AACTGTACGA CCTAGGAAGT GTCAAAGTTA GGTGACCAGA TTTTTAGAAG TCAGCCAAAT
113581  ATTCAGCATC TTTGATTTAG TAACAAATAT ATTGATGGCT ACTTCAGCAA AAAAAATCAA
113641  CTTTGTTTTC TGGTTACTTT GCTAACAAGC TTCTCCTGAC AGGAGGATAT AGTGAATAGG
113701  CAGTTGAATA AGTGAGTTCG GGTGAGAGGT CTGAGCTGGA GATAAAAATG TGTGAGTCAT
113761  CAGCAGATAA ATAAATGCTG AGACCAGATG AGATGGCTAA AAACTGAAAC ATAATGTAGT
113821  GCAGCATTGT TTGTAATAGT AAATGAGTGG CAACTGTAAA GTTTTCATCA GAAAGGACTA
113881  GAGTGATCTA TACATCCATA AAATAGAGTA TTTCTCTACA CAGCCCTACT AAAGAATGAG
113941  AAAGCTGTAC TCCACTACAT ACTCTGGTGT ACTCTGGCTC AGTTCTTGGA CTCCTCTTTT
114001  CTTGGCTAAC TCAACTGGCC TCACCACTTA CATGCTCTGT GCTCTGTCAA ATAGTTTGTT
114061  CAACAGAACA CCACGGCCTA GCTGTAAGTG CCACGTTAAC TTCTAGCAAT GCCAAAGCCT
114121  GTGATAGTGG CAGCTTCGGG CTGTTTCTCA TTCCCGGGAT GCCTAACCAC CTCTCCAAAT
114181  TCTATCAGTT TGCTTCCACC CACTTCAAGC TTCAGAACGA AACATAGAGC TTAAGAAATA
114241  TAGGCCCGGC AAGGTGGCTC ACGCCTGTAA TCCCGGCACT TTGGAAAGCT GAGCCTGGTG
114301  GATCACCTGG GGTCAGGGGT TCGAGACCAG CCTGGCCAAT ATTGTGAAAC CCCGTCTCTA
114361  CTAAAAAAAA AAAAAAATTA GCTGGGCATG GTTGCGGGCG ACTGTAATCC AAGCTACTCG
114421  GGAGGGTGAG ACAGGAGAAT AGCTTGAACT CGGGAGGCAG AAGTTGCAGT GAGTTGAGAT
114481  CGCGCTATTA CACTTAGGCC TGGGAGACAA GAGTGAAACT GTGTCTCTAA ATAAGTGTTT
114541  GCAATTATAA ACCATCTCCC TGACCTTAAA TCTCTAGACT CATATACAAC TGCATATTTG
114601  ATGTATCTAA TTGAATAATG GGCATCTCGA ACTTGTCCAA AATATGTTTA TACGTAAACA
114661  CCAAGTCTGT TCTTCCTCTG ATATTTGTCA TGTCAATCAA TAGAACTCCA TTCTTCAAGC
114721  AGCTTGGGCC AGGAATTGTG CAATATTGTT TGTCCTGAGC TTCTTACAAC TTTCACCCAA
114781  TGCAGTCAGC TCTGTTGAAA ATCAATCAGA ATACCTTTCA TTGTTTTCTT TGCTGCTTCT
114841  CTAGGAGCAA GCTGCCATGG CGGTTTGTCT GAATGACCAC AGTGACCCCA AACTGGTCTT
114901  TGTTTTCACT TTTAATCCCC CTGTCATACA GTTTTTCTCT ATCCAGCATC AACAGTGATC
114961  CTTTTTGAAG GTATTATGTC CACTGTCTGC TGAAAAGATT CCACTGGCTT TCCATCACCT
115021  TCATAATAAA AACCAGCATC CTTATCATAG CCTACAAGTA AGATGACCAA CCATTACAGT
115081  TTGCCTGACT CTCAGGGGTT TCTCAGGGTG TAAGACTTAC AGTGCTGAAA CTTAGAAAGT
115141  TCCAAGCAAA CTAGGATGAG CTGCTCAACC TACTAGATCT GTACTCTGGC TACCCTCTGA
115201  CCTCATTCTC TTCGCAGTTC TTTCTCTTCA CTGACCTTGC TGTTTCTGGA ATGGACCAAG
115261  CATTTCCAGC ATCAGCACCT TTATATCTAT TCTTTCTCCC TAGAAGGGTC TTGTCCTGGA
115321  TATCTGAATG GCTCTAGATC TCATTTCATT CAAGCCTCTC CTCAAATACC AACCTTAAGA
115381  AAGAGACCTC CCATAATCAT CCCTTGTAAA ATAAGCTTTT CTGCTCATTT AGCATATATA
115441  TATATAGTTG ACTATCCTCA ATAGCATATA TATATAACAT TTCCCCACCT AGAATTATAT
115501  ATGTAATAAT ATATTTAACA AAAAATACAT ATAACTAGAT ATATTTTATT TTGTGTTTGT
115561  TCTCTCTCCC CCAACTGGAA TATATTTTTT GAAGGTAGGG ACTTTGTTTT GTCCCAGAAG
115621  TATCCCTAGC ACCTTGAACA GGGCTGACGT TTAACAGGTA GTTTATGGAG GTTTGTTGAA
115681  TGAAAGGATG TGTGAATTTT CTATGTAAGT CTCCAGGCTC TCCACTAAGC CCACCAGAAT
115741  GCTAACACAA TCAATTCCCC ATCTCATTCC TTGACCTGCC ACTGCCTGAA GCAATCAGCG
115801  TGCAGTTTCT CTTTAGAAAA TCTGGGGGAT AGTCTAGGGG TTGCAAATTA AGCAACATTA
115861  TCTTTGTTCT GAACAAGGAC TGCATGAGTG TTAGGACTGA AGAAGGCCCA AGGTGGTGGT
115921  GGGTATGCCT AAGATGAGTA TGACATATCA GCAATGCTAT GAACATAGCA ATGCTATGAA
115981  AGGCCAGGCA AAACGTAACA GGAGCTAGTC GTGGCTTATT GTTACAACGA CTATACCTCC
116041  CATATGGGTA ATCGATATCC ACACACCCCT CTACATTGAC TCTGGAATTC AGGAAAGGGA
116101  ATTAAAATTT TCTAACTTAT GTACCCCAAT GATTTCAACA ATATCTGGCA TATGAGATCA
116161  ATAAATATCT TTAAAATACC AACTAAGAAA GACATAAAAT GACCCACCCT CCATACCAGG
116221  CTCATTTTTG CTCCTCTGAT TCCTGAAACT ATCCAGAATG CAGCTATGAA TTCTCTCCAT
116281  TGTCAGTTTT AAATTAAGCC AAGCTGGGTA CTTGTGTAAT TCCTCAAGAA ATCCTGGATG
116341  AAAACTGTCA GGTGGAAAAC AGGACCTCAA AATAAAGAGA CATCCATCAC TGAAGCTAAC
116401  ATCGTGAGGC TGAAATCAGT CCTATAACAA TGGTACCAAA AAGAGCACAA TGAGAGGCAT
116461  TTGTGAATAT TTACTCAGAT GAGAGTAAGA TATTTCCCTA TCAGCTAACC TGAAGTTCAC
116521  ATCCCTTTTC CAGCTGAGTT CTGAAGCTAG ATGTACTTAA CTGGAACACA TAACTGCATC
116581  AGGAACATCC TTTAAAACTA TGGCTACAAT GGCTTGACTG GACAAACCCC AGGCTTCCAG
```

Figure 9 (Page 36 of 74)

```
116641  GTTTAGCACA GGTGGCCCTT CACAGACCAA CATTGCCTAT GCTACCAACC TCATGTCCTA
116701  CCACCCTGCT TGCATCATTT CTCTCTCTGC ATATATAAAA ATATATGTGT ATGTATATAA
116761  TCAGCTTTAT TGATATTTAA TATACCACAA AATTTGCCCA CTTTAGGTAC AGTTCAATGA
116821  ATTTTACCGT GTTTTCTTAG TTGTACAACC ATCATCACAA TTTAATTTCG GAATATTTCT
116881  ATCACCCAAA TTTCCATTTC TGCGTAAAGG GGGAAAAAAA AAGGTTAACT GCTGAAGGCC
116941  GCGGTAACAC TGAAAAAGGT GCCTTTTCTC TCTAAAACAG ATTTTAATCT CCCCTGAATT
117001  TAGTGTCCTG GGTATTCCAG GAGTCTGAAT AGGGTTTCAA TTTTCAGGGT CTTTTTAATA
117061  GAGTAAAACT GTATTGGTGG CGATAAATTT AGTATTGCTC TCAGTACATG ATTGAGGGAT
117121  ACTTAAATGT CTCTGTGATT TTATTTCATA ATCGCTAAAA GATGGTTTTT TTTTTTCCTA
117181  AAACAGGGTT TTTGTTTTTT CTCAATAAGC TTCTTAGCTT CCCCTCCGGC TCCCTGGCTT
117241  GCCTCAGGAA ATATTAGCTC ATCAGTTCTG ATTGGTTGAC AGCTACGAAT GGCCCTCATT
117301  GATTGGGCAG CGCTTCTTTG TCCCTTGGAA ACTAATACAA ATTTTTAACA CTACTTTTTT
117361  TCCACTCTTT CTTCAGAGTT GGAATATCGT TGCTCCCCTA CCCATATGTA GTGAGTGGAG
117421  GGCAAACTTG GAGTTCCCCT AATCTTTCCT TTTTAGGATG TCAGCTCAGT ATCATTCATC
117481  TTAATTACAC ATTGAGCTTC TTGACTTAAT GGATACAGCT CTTCTTTTGT TTAGTTGGGC
117541  GGCCCTGAAA AGGGCCTTTG GTTCAGAAAT GCAAGCTGTG GAGAAATCAG CAACCTTAAC
117601  CGCCAAAGCC ATAAAGGGTG CGTCCCTGGC GCTTAAGCGC GTAGACCACG TCCATGGCAG
117661  TGACTGTCTT GCGCTTGGCG TGCTCCGTAT AGGTGACAGC GTCACGGATC ACGTTCTCCA
117721  AAAACACCTT GAGCACCCCG CGAGTCTCCT CGTAGATCAG ACCAGAGATC CGCTTCACAC
117781  CGCCACGCCG GGCCAGACGC CGGATGGCCG GCTTGGTGAT GCCCTGGATG TTGTCACGCA
117841  ACACCTTGCG GTGGCGCTTG GCACCCCCCT TACCCAAACC CTTCCCGCCC TTACCACGTC
117901  CAGACATGAC TTCCCAAGAA GTGAACCAAG AGCAAGTGAG AGAATAGGAA ACCGATCTTT
117961  ATATATCTAC GTTACCCCTG CCCCCACCTC CAGCGGACAC AGAGACTGAA AAGCGCGCAG
118021  GCGGGAAATG TGACGCCTAC AGTCCGCTCC TTTAACCCCT CCTCCAAGCC CCAGGAAATG
118081  GCGGGAGCAG CGATTGGGGG AGGGTGGGGA GATGAGGGTG GGACCAAGCA GGCTTGACCA
118141  ATGGCCTTTA TTTTCTTAAC AGAGCTACAG GCTTTGAGGA ACTGGGTTAA GAATTAAATG
118201  TAAACCCATT CTGACTCCAG AATTATTTTA AGTCGAACTT TTTTTTTAAC CGAATCTCTC
118261  TGTCGCCCAG ACTGGAGTAC ATTAGAGCCA TCTCGATTCA CTGAAACCTC TGCCTCTCAG
118321  GTTCAAGTGT TTCTCCTGCC TCAGCCTTCA GAGTGTACCT GGGATTACAA GCGCTCGCCG
118381  TCGCGCCCGG CGTGTTTTTG TATTTTTCGT AGAGACGGGA TTCGGCCATG TTGGCCAGGC
118441  TGATCCCGAA CTCCTGATTT CTGGTAATCC GCCCGCCTCA GCCTCTTAAA GTGCTTGAAT
118501  TACAGGCGTG AGTCACCGCG ACCGGCCGAA ATCGATTGGT TTTGAAGCCT TCAGTAGCAT
118561  TAAAACGAAA AGTGCTCCCA ATGCATTCCC TTTTGTCTTA AATTGGTTTC TTACAGCTAC
118621  TTTACTTGAA AAGGTGGTGG CTCTGAAAAG AGCCTTTGCT TGGACCGTCA GAGAGACCAC
118681  AGTAATCACG CCCTCTCTCC GCGGATGCGG CGGGCGAGCT GGATGTCCTT GGGCATGATA
118741  GTGACGCGCT TGGCGTGGAT GGCGCACAGG TTAGTGTCCT CAAATAGCCC TACCAAGTAG
118801  GCCTCGCACG CCTCCTGCAG AGCCATCACA GCGGAGCTCT GGAAACGCAG GTCTGTTTTA
118861  AAGTCCTGCG CAATCTCGCG CACCAGGCGC TGGAAAGGTA GTTTACGAAT AAGCAGTTCA
118921  GTGGACTTCT GATAACGGCG GATCTCGCGC AGAGCCACGG TGCCCGGCCG GTAGCGGTGG
118981  GGCTTTTTCA CGCCGCCGGT GGCCGGAGCG CTTTTGCGGG CTGCCTTAGT GGCCAACTGT
119041  TTGCGTGGCG CCTTGCCACC AGTAGACTTC CGAGCAGTTT GCTTAGTGCG AGCCATGACG
119101  GAAAAACAGC ACAGCGGAAC ACCCAACACT AGCGCAAATA CGCCCATGAG CTGCTCTATT
119161  TATAGTGTGT AAAGTGCAGT GATTGGATGA TAGAAGACGC TAAATATGAC GTTACACACT
119221  CTGATTGGTC TATCTTTAAG CCAGCAACAA TCGTGCAGTT TCACCGGCTA CTATATTCTA
119281  TTCCAACTCT ACAGATGATT ATTTAAGTGG TATTTTATTA CTACTATTAT TTTATTTTAC
119341  TTTTGCTTTG TTCCCCAAGC TGGTCTTAAA CTTGGGCTCA AAAGATCTTC CCGCCTCAGC
119401  ATCCAGAGTA GCTGGGATTA CAGGGGAGCC CCACTGCGCC GGCTTGGACT TTAATTTTTT
119461  AAACTTGTCC TCTTCTACAT CTGGTTTTCA TAACCTGAAG GCTGTGTTTA TTTTCCATAA
119521  AACAAGGCAT TGATTCCAAA GGTATTATAA TTCCCCAATT CCGTATAACC TTCAGCTCTT
119581  TAGGAAAAAA AAAAAAAAAA AAAAAAGAGG GAATACTGCT CACCTCCTCT CCGGAAATGT
119641  ACCCTTTACG GGAATTTCTG AAACCTTTCA CAAGAATTGG ATTCCTTTGT AATGCTTTAA
119701  TTGACTTAGG AGTGTTATTG AAATCTACAA AGCATCTCAA ACATAGTAGG ATTACACTAT
119761  TACTCAGAAA CATTTTCTAT GAGACGTCTT TCTCTTGATT ATGCTCTTTG AATCCTAAAC
119821  TTGCAGCGTT CTGCAGCTTT TGTTTTCTAA AGCCTAGGTG TACTCTGCCA GTCACAAAAT
```

Figure 9 (Page 37 of 74)

```
119881  GGCGTTTCTC CAGCACTGCC GCCAGGTACC ACCAGCTGGG AGTTGTTCCT CTTGCGGAGC
119941  AGGAGGTGGA CTTGGCCCAA GAGAAACTGG ATAGTGGTTC GCAAGGAACA TAATTTAGCA
120001  TTGCCAAGAG CTAATGCAAT CATTTTGAAA ATCTCAAAAC ACTGAAAAGT GGATTGTGAC
120061  CTTTTTAAAT TCACAAGAGA CAGGCCACAT TCTATCTTTT GATTGGTTTA GGCTATTTTC
120121  TTGAACAGCC ATTTAGAAAG CAGATCTATC ATCCTTCATT TGCATGGAGC GTTCCCATTT
120181  TATTTGAAAC CAGTTTAACC CAATAGAAAA AAGGGAGGCA GAACCCATTA TTTAAAGTGG
120241  AAACTCCTGA ATCAGATAAT TAGGAGTATT TCCTTTTCAA AAGTTGCGTT TTTTCAGATA
120301  CCTCGCTTAT TACACTAAGA AAGGTTTATA TCTTTCACAA AGGGTTTACT TACAAAAATC
120361  TTCCAATTTT GTATACCTGT GTTTCATAAC TGACTAGCCG TCAAACCAAG ATGTAGAGTT
120421  TCCAACCGTT ATTTTCCAAA TTTTTAGAAA TTACGTGAAA TATTTGAATG CATGCCTTCT
120481  CAATAAAATG GGACGTAGGA AGCACTGGTG CAGAAGATGG GTACAATACT TATCTGGGAC
120541  CACTCCATTA TTTGGTTGGC ACGTTGTTTG AAGAAAAAGG GGAAAAGCTC AGGTTACTTA
120601  GCATGGTTCG GACTTATTTG AAAACTACCA CAGCAGGAGC GGAAATAAGA CCGCATTACC
120661  TCACTCTCTG CTGTGCTGTG CTAGGGGGTT ATCCAGAATA GGATTGTAGA AGTGGATGTC
120721  GATTTAATAG TTTTTTATTC TCCCATTAGC TGAGTCTCTG ATTGGCAATG TGAGATCGTT
120781  TTAGCTTATT GATACTTTGA AATGCACTTA ACAGCCACAA ACAAGTTAAA GGGTTGTTAC
120841  CATAAAATCT TATCCCCAGG GTGTGCTTGC ATTTATCACC CGTGTTTGCT TTCACACTAA
120901  GTGGACTTAA CTCCCCAGCA GAATGCCTGT CAGGGAACCG GTTTCGTGGA CCCAGCATTT
120961  AACGCCTTTC GCAGGCTTGT GAGGCCCATA AATATTTGTT GAATAAAAGA ATGAGTTGAC
121021  CATGTCATGG TGCGCTGATT GCGTGTGCTG ACATGGAACA CAGGTTGTAA ACCTTAATAC
121081  CAATTTGGGG CATGTTGTAT GGATGAAAAG GGCATTGGAA ATTCCTGAAG TGCATCCCAC
121141  ATTGGACTGT GGAAATAAGT TGCAAGTGCA GAAACGTTTC CACACTTGCA GTTTGAGTAT
121201  TAATTGCAGC GTTTGTGAAT TCTGGTGTTG TCTACGATTC ATTCTTGTTT GACGTGAAAG
121261  GTATTCGCGA GACACATCGC TCTAAAACAT TGCCAGAAAA TGTAATAGAG TTGATGACAA
121321  CTGGCCCTAA CACGGCCTAA AACTCGCACT TTTCTCTCCC TCCGCAACTA TTCAAAACAC
121381  TGTATTTTAC ATTTCTTGCA AATTAAAAAC TAACATCTCT GGCAACGGAC CTCTAAAAAT
121441  TTCTAATAAA ACTCCTCGGA TGCTTGTGGC ACTGCATTTG TAAACCGCCC CCTCTCAACC
121501  TACTCCCTAA AAAAGAGCTG CTTTTTGAGA GAGAAGCGGT ACCCTCTGAT GTTACTGGGC
121561  GGCAGTCTGC CTACAATTTC CTTCACAATG AGGCAACCAG AGCGGCTTTT TCTGTGTGTT
121621  TGCTTGCGTT GAGGGGAGCA GGACCATAGG CCCTAGAGGC CCCCAGCTGC CTTCTGAGAC
121681  TGGGCGAAAC CCTCGGCAGC GCGCAGGGGG CGCTAGGGCG CGAGGGGCGG GCACTGACGG
121741  GCACCAATCA CGGCGCAGTC CCACCCTATA AATAGGCTGC GTTGGGGCCT TTTTTTCGCA
121801  TCCTGCTTCG TCAGGTTTAT ACCACTTTAT TTGGTGTGCT GTGTTAGTCA CCATGTCTGA
121861  AACAGTGCCT CCCGCCCCCG CCGCTTCTGC TGCTCCTGAG AAACCTTTAG CTGGCAAGAA
121921  GGCAAAGAAA CCTGCTAAGG CTGCAGCAGC CTCCAAGAAA AAACCCGCTG GCCCTTCCGT
121981  GTCAGAGCTG ATCGTGCAGG CTGCTTCCTC CTCTAAGGAG CGTGGTGGTG TGTCGTTGGC
122041  AGCTCTTAAA AAGGCGCTGG CGGCCGCAGG CTACGACGTG GAGAAGAACA ACAGCCGCAT
122101  TAAGCTGGGC ATTAAGAGCC TGGTAAGCAA GGGAACGTTG GTGCAGACAA AGGGTACCGG
122161  AGCCTCGGGT TCCTTCAAGC TCAACAAGAA GGCGTCCTCC GTGGAAACCA AGCCCGGCGC
122221  CTCAAAGGTG GCTACAAAAA CTAAGGCAAC GGGTGCATCT AAAAAGCTCA AAAAGGCCAC
122281  GGGGGCTAGC AAAAAGAGCG TCAAGACTCC GAAAAAGGCT AAAAAGCCTG CGGCAACAAG
122341  GAAATCCTCC AAGAATCCAA AAAAACCCAA AACTGTAAAG CCCAAGAAAG TAGCTAAAAG
122401  CCCTGCTAAA GCTAAGGCTG TAAAACCCAA GGCGGCCAAG GCTAGGGTGA CGAAGCCAAA
122461  GACTGCCAAA CCCAAGAAAG CGGCACCCAA GAAAAAGTAA ATTCAGTTAG AAGTTTCTTC
122521  TAGTAACCCA ACGGCTCTTT TAAGAGCCAC CTACGCATTT CAGGAAAAGA GCTGTAGTAC
122581  ACAGATGAAA TCCCCCAAGC AAATGCAACA CGCCCTCAAT TATATTAGAA TCACTTGGAG
122641  AGTCGATAGA ACTTTAACAT AGCCTCATCT AGTAAGAATT TACTACTCAA TCTATCAAAG
122701  ATAGCAAGGT GAATTCAAAT GCACCGAGTT AAAATCGAGT TTTAAAGTCA CCTGGGTTTC
122761  GGTAGCCGGA AGTCCCGCGT CTCACGACTC CAAGCTAATT AGTCATAACC GTATTGAACC
122821  AAGGTTGAAG CCCAGTCCCA GGCTTGAGGC TTTTTATTAT ACAAGGTTAA AGTGGGGATA
122881  TTGCGTTTTG GGGTCAATAT TGCTAAAGTA GCATTTTCCG AAATTGGGTG GTCCTAAGAA
122941  ATGCTTCTGG GATAGTTGGC AAAATATATG GCTTAACCAC GCCCTCTCCA CAGGAGTGGC
123001  TAGCGAGCTG TCTGTCCTTG GGAAGGACGG TGACCCTGCT GGCGTGGCTG GCGCCCACGT
123061  TGGCGTCCTC TGAAAGCCCC GCCAGGTAGG CCTAGCTCGC TTGCTTTCTG CAGCGCCATC
```

Figure 9 (Page 38 of 74)

```
123121  ATGACAAAGC TTTGAAACGC AAAATGCTTT CTTTGTGCAG CGCCTTACCA TGGGTGCACT
123181  TACGGGCTGT CGACTTGGTT TAGGCCCTTG TCAGGACAAA GGAGCTTAGT TTGTTGGAGT
123241  TTTAGAGCTG CAACCCAAAA TCCCTTGCTC GGTTTCTCTG TTTTTAGAAA CGGAAGCGCC
123301  CTGATTGGAT ATTTGAAAAT TACTGTGCTT AACTGGATCG TGTTTCATCA ATCGTGCAGG
123361  ATTTTCAACC CTGGTGGAGC CCACACATTC AAAACTGAAG ATCCTTTTCT CAGAACTGCC
123421  CCTTTAAGCT TTTGCAATTT TAATTCTGGG GGTCAGATTT TAATAATTGG ACTTTTTTGT
123481  TTACATCTGA CAAGAGTATA TGATGAGCCA AGTTTACTCA CTTTTACTTA GTGCAGTTCA
123541  ATTCTAAAAG TTTATTTTTG CGTGTGTGCA TATGAGTTAA TAATCAGTTG TATTTTTCAA
123601  ACGGTCTTTT TTCAATTGTT TTGCTTAGCT CCTTCCATCG TCTAAAGTCA GGGATACAGG
123661  CACATCACAT CCCTGTTCCC CCTTCCTCAA ACTAATATGT AGCTACCTAG GTTTATCCTT
123721  TAAAACAAAA ATTCTCACCT ATTTTTGTGA GAAATATACA TGTTTTTCTT TGAACTAAGT
123781  ATTTTACATA CACCTATCTA TATACATGCA TACTTGTGGT TTTGTTTTTT TAAAAAAAAA
123841  AAAAAAAAAA CACGTTATCT TTTGAGACTG GGTCTCAGTC TGTTGCCCAG ACTGGACTGC
123901  AGTGGCATAA TCACAGCACA CTGTAACCTC CAACTCCTGG GCTCAGGCTA TCCTGCAGCC
123961  TCAGCATCCG GAGTAGCTGG GATTGCATGC ACGCACCACC AAGCCGGGCT TTTTGTTTTT
124021  ATTTTTTGTG GAGACAGTCA CACCATGTTG TCCAAGCTGG TCTAGAAATG GCCTCAAGTG
124081  ATCATCGACC TCCCAAAGTG TTGGGATTAC GGTCACTGTG CCTGGCCTTG TATGCATAAT
124141  TGTTTTGTCT TTTGATTAGG GTTATTAATT TAAAAAACAA AGCCTGGACG CAGTGGCTCA
124201  CATCTGTAAT CCCAGCACTT TAGGAAGCCG GATGGGCAGA TTACTTGAGC TCAGGAGTTC
124261  AAGACCAGCC TGGGCAACAT GGTGAAATCC CATCTTGACA AAAAATACAA AAAATTAGCA
124321  AGGCCCAGTG GCACGCACTT ATAGTCCCAG CTACTTGGGA GGCTGGGGTG GGAAGATGAC
124381  TGGAACCTGG GAGGTAGAGG CTGCAGTGAG CAGAGATCGT GCCACTGCAC TCAAGCCTAG
124441  GTGACAGAAT GAGACCCAGT CTCAAAACAA AAATAATAAA AATTTTTTAC AACGATGTTA
124501  TATACACTTC TGCATGTTGC TTTTCTCTTA ACCAAACTTT TCTAAAACCC TGTCATGAAA
124561  AAAGAAATCC TTCACATGGA ATAGCATAAG TTATTCATCC ATTTCTTATT GATAAGCATT
124621  GATGTTTCCA GTTACCACTG CTGAACATGG TGCAATTGAA TAGAATTCCA GGGCTGAGAT
124681  TGCTAGGTTT TAGGTTGTAT TTTATTATTT TATTTATTTA TTTATTTATT TAGACAGAGT
124741  CTTACTCTGT CACCCATGGT GGAGTACAGT GCCATGACCT CAGTTGCAAC CTTTGCCTCC
124801  TGAGTTCAAG CGATTCTCAT GCCTCCGGTC TCCCGAGTAG CTGGGATTAC AGGCACCTGC
124861  CACCAGGCCT GGCTAATTTT TGTATTTTTA GGAGAGATGG GGTTTCACCA TGTTGGCCAG
124921  ACTGGTCTCA AACTCCTGGC CTCAAGTGAT CTGGCCACCT CGGCCTCCCG AAGTGCTGGG
124981  ATTACAGGTG TGAGCCATGG CTCCAGACCT GGACTTTGTC TTCTGTTTCA TCAGTCCTTC
125041  TGTTGGTTCA AGCACAGTAT CACACTGAAG ACTGATGATT CTATATAAAT ATGGTAAAGA
125101  CTGTACACCC TAACTGTTCT TATTTTTTAA TTTTAAGGCA ATTTTAGATT CCAGCTTTCC
125161  AAAGAATTGT GGAATGCTTA GAGCTAGAGA AGCCTTGGAA GTCATTTAGT TTTTGTTTTG
125221  TCAGAGAAAA TTCTGTAGAG ACTCTGTCCT GCTCTCACTG AATACCATCC CATAGTACCC
125281  CCCAACAGCT TTAAAGGGCA ATAATACCTT ATGGACAGTA TGCTTTTCCT CAAATATATT
125341  CTAAGCCATG GTCAATGCAA AAGAGTGAGA AGGAAAGTAG AATAAGTTAT CTAAGAATCA
125401  GTGGGTGCTC TCTTTAAACT GATTTATCAC TCCCCCTTCC AAACTCTCTT GAAGGTCACT
125461  CTGCCTCCCT TTCTACATAA GAACTCCTAA CTCCAAGGGA GGAAGGTAAG TTATTCTTAT
125521  TCCTTGCTTA GAAAAAGAGA AAATAGGTTT GGTAAGCATC CGCTTTCTGC TACCATTCTC
125581  TGTGTTTCTG TGTTTTTTAT AGGATCATTC AATTATTGGT TGGCTCTTGA GAGGGAATGC
125641  AAGGTTCAAG GACACAAGCC TAGATCTTGC CTGTATAGAA CCTCATGATG TTATGCTTCT
125701  CTAAAATGAG GCCTGGAGGA GACATGTTGA AAGTGACCCA TAAATCTGCA GTATCTCATG
125761  TCTCTCAATG GGGACAAGGA GTACCATGGG AAATAGCATT AGGTCAATGA CAGTAACAAC
125821  TCCCAGGTGA GTTGATTTAT TCTTTTATTT ATAAAGTTGT TAATATGCTA CATAGTCCCT
125881  AATTTTGCCA CAAATAGTCA TTATTTTAAT TTCATATTTC ACTATTGATA AATGAAGGAA
125941  AAAATGAGTA GCAGTTAAGC AGTCCATAAA CCTACATATA AAGCAAATTG GAGATTTTAA
126001  AATTGATTCT GGATGCTTAA AATCCTTCTC ATTGAAAAAA AATTTCGTAT TAGAAGATTT
126061  CAACATTCTT TAAACTGAGA AGCATAACAT ATAAACAGAA AACCACAGCA AAACAAAAAT
126121  GCAAAGCTCA ATAAATGAAC ACAAAGTGAA CACCATAATA ATTGCCACAC AAGTAAAAAA
126181  ACAGAAAATC AGCCAACCCT CCCAGAGCTG CCTGATGCTT GCTTCCAGTC ACATTATCAC
126241  TCCATCTGCC CTAAACATAA CCCCTATTTT GATTTCCAAT GCTGTAATTT AGTATGCCTG
126301  TTTTTGAAAC ATATAAAATG GAAATAAAAC AAATGTAATC CTATGTACCT GACATATTTC
```

Figure 9 (Page 39 of 74)

```
126361  ACTCCAGAAC ATTAGGTTTG AATAGATTCA TCTGTGTTGC TGTGTATAAC TTTAATTCAT
126421  TTTTATTGTT ATGTAATATT CCATGTTATG AGTGCAACAA TTTAGGTGTC TACTGTTGAT
126481  GCATATTTGC TTCCCTTTTT CAGCTAATAT AAACAATACC GTGAATATTC CTGTGTATGT
126541  GTCTTGGTAT ATATAGGAAT ACATATTTTG TTTGTATACC TAGGAGAGGA ATTGTTGGGT
126601  CAAATGCTAA ACTCTTTTTG AAAGTGGTGA TATTAGGTTT ACATGCGATG AAATGAAAAT
126661  TAAAACCACA GTTATAAACA GCATGGATGA ACCTCACAAA CCTAATGTTG ATGGAATCTA
126721  GCTGGGAATT CCTGTTCTTC CATATACTTC CCAATATTTT TTTCCAATTA AAATTGTTAA
126781  TCTTTTGAAG ATGTTATCCA TTGTGGCAGA TGTGCAGTAT TATCTCATTA TGGTTTTATT
126841  TTACATCTTT TGCCCATTTT TTCTTAATTG GATTGTATAT CAGTCGACTT GGGCTGCCAT
126901  AACAAAAATA CTAGACTAGG TAGCTTGAAC AAAAGGAATT TATTACCTCA CAGTTCTAAA
126961  GGCCAGGCCA GAAATCCTAA ATTGAGGTGC CAAGAGATTC AGTTTCTAGT GAGGGCTCTC
127021  TTATTGACCT GAAGATAGTT GCTGTCTTAG ATTGTTTGGT GCTGAACAGA ATACCAGAGA
127081  CCAAATAATT TATAAAGAAT ACAGATTTAT TTCTTACAAT TCTGGTGGCT ATAAAGCCTA
127141  TGGTCGAGGG GCCCACCTCT GGCAAGGGCC TTCTTACTGT TATGGCAGAT GTGAGATGTC
127201  ATCTCATATT CAAACCACAG CAGTCGCCTT TTGTGTCCTC ATGTGGCCTC TTCATATGCC
127261  CATAAAATGA CCTCATGTCT CTTCCTTTTC TTATAAGGAC ACCAGATCTA TCAGACTACT
127321  GGCCTACTCT TATGACCTCA TTTAACCTTA AATATCTCCA TAAAGTCCCA AAATCCCTAT
127381  CTCCAAATAT AGGCACATTG GGTGTTAGAG TTTCAACATC AATTTTGGGG GAACACAATT
127441  TAGGCCAAAA AGATTGTGTT TTTTCTTGTT GGTTTAAGAT AGCTGTCTTT TTGTCCTTTT
127501  TGTCCTTTCT TTTTTTTTGA GGTGGACTCT TGCTGTGTCA CCCGGGTTGG AGTGCAGTGG
127561  CGCTGTCTCA GCTCACTGCA ACCTCCACCT CCTGGGTTCA AGAAATTCTC CTCCTCCCAA
127621  GTAGCTGGGA CTACAGGTGC ATACCACCGC GCCCTGCTAA TTTTTGTATT TTTGATAGAG
127681  ACGGGGTTTC ACCATGTTGG CCAGGCTGGT CTCAAACTCC TGACCTCAGG TGATCCACCT
127741  GCCTCGGCCT CCCAAAATGC TGAGATTACA GGTGTGAGCC ACCAAACCTG GCCTGTCTTT
127801  TCTGTTTTAA GTTTTTAAAT TTTGCTCACG AACCCTTTAT CCATTTTATG TGTTGCAGGT
127861  ATTTCCTCTG TAACTTGTCT TCACTCTGTC AGAGGCTGGA GTGCAGTGGC ACAATCACAG
127921  CTCACTGCAG CCTCCACCTC CCAGGATCAA GCGATCCTCC CATCTTATCC TCCTTAGTAG
127981  GTGGGACTAC ATGTGCAGGC CACCATGCCC AGCTAATCTT TGTATTTTTT TGTAGAGATG
128041  GTGCTGTTGC CCAAGTTGGT CTCAAACTCC TGAGCTCAAG CAATCCATCA ACCTTGGCCT
128101  CCCAAAGTGT TGGGACTAGA GGTGTGAGCC ACCACTGCAC CCAGCCAATG ATATCTCATG
128161  ATGCATTAAA GTCATTAATT TAGTGTACTC AAATTAAGCA CACTGCCCTT TTATGCACAA
128221  CCTTTTTTGT ATCTTATTTA AAAAATCATT TTCTATTTCA AGGTCATGAA GATCTTATTT
128281  TATAATACCT TCTTGTGAAA TTAGTTCTCA AGACTACCCT CACTTCTAAC ACCAATTATA
128341  AGTTGGGAGG TCTGTGGTTC CCAATCAACC TTAGGTTAGT AATTTGCTAA AAGGACTCAC
128401  AGAACTTGCT GAAGCTGTTA GCCTCATGGT TACAATTTAT TATAGGATAT ATAGCTTATT
128461  ATGTCATTCC AATGCAATGT AAAATTATAC AACTACTTTT AAAAAGATTT TAGCATTTGA
128521  CCCAACAATT TCACTCTGAG GTATACAAAC AGCAGATATG TGTGCACATA TATACCAAGA
128581  CACATACACA GCAAAATTCA TTGTTTGTAA TAGTTGAAAA GGGGAAACAA CTCAAGGAAT
128641  AAAGATTAAA ATCAGCTGAG AAAAGAAACA CACAAGGCAG TATTATGGAT CGAATTGTAT
128701  GCAGATCTCC CTTGCCCCCA GAAGATATGT TTAAAGTCCC AACTCCCAGT ACCTCAGAAT
128761  TGTGGCCTTA TTTGGAAATA GGATAGTTGC AGATATAATT AGTTAAGATG AGGTTATAGT
128821  ACAGTATGAT GGGCTGGTGA CTTAGAAGAA GTAGTATATA TATATTTTTT AATAGAACTA
128881  GTATTCTTCT AAGGTGGTCA CGTGAAGACA GACACACACA GGCAGAGACT GCGGTTATGC
128941  AGCTGCAGGT CAAGGAATGT CAAAGGTTGC CAGCAAGTAC GAGAAGCTAG GAAGAGTCAA
129001  GGAAGGATTT TCCTACAGGC TTCAGTGGAA GCATAGATCT AATGATACCT TCATGTCAGA
129061  TTTCTAGCTT CCAGAACTAC AAGAGAATAT ATTTGTTGTT TTAAGCCACC CTAGCTTCTA
129121  GCTCTTTGTT ACAGCAGCCC TAGGAAACTA ATATAGGCAC AATCCAGGCA AGTTCCAAAT
129181  ATGAGCTTCC AGTTGTCCTC TCCCAGTAAT ATGAACAGTA TTACTTTCCC AGCATTAATG
129241  TGTGACAATA CACATGACGT ACAGAGCAGT CCCCACTTAT GCACAAAACA TATGTTCCAG
129301  GACCTCCAGT GGATGTCTGA AACCATGGAT AGTACTGAAC TCTATATAGC TGTTTTTTCC
129361  TATACAGACA CAGCTATGAT AAGGCTTAAT TTATAAATTA GGCACAGTAA GAGATTAATA
129421  ACAATAAATT AGAATAATTG TTAAGAATAT ACTGTATAAA AGTTAGGTGA ATGTTTATTT
129481  CTGAAATTTA CCGTTTATTA TTTTTGGACT GCAGTAGACC ACAGGAACTA AAACCATGTA
129541  GAAACCGTAT ACAAGAGAAC TGTATTTCAC CCGAGCCTCA GTGTGCAGTT TTAATGGCCT
```

Figure 9 (Page 40 of 74)

```
129601  GCCATGGTTG ACTGCTCACA TGGCCGATCT TTTAGTCTAC CTCCACAGGT AGAGCTGATA
129661  CTGTGTGGCT CAAAGTTCCT ATTATAAATC ACATTGTTGA CTGTGTGGTG GTCAAAACCT
129721  CCAGGTAAAC AAAGACACAC TTATCAGTGA GAACATTTCA AGGGTCTAAA ATTCATCTCC
129781  CAGTAGCTGA GGGCAAAGGC TAGACCTCTT TTTGGGTAAG ATAAATTTTT TACCATATAC
129841  TTTATTTTGC TTTTCATGTT TAACTTTATT TTGCTTTTCA TGTTAGTTCC CCTGGAATTG
129901  TTTTTTGTGT ATAGTGTGAA GTAGGGGGTC AAGTTTCTTT TTTTTTCCTT TTTGTTCTTT
129961  TTCTGTTTAA AAGGCTATAC AATTGTCCCA TGCCATTTAT TTACAAGAGT CCTTTCACCA
130021  TTGTTGTATG GTGCCACTTT AGATGTAAAT CAATGTCCAT ATTTGTTTGA GCCTGTTCCA
130081  TTCGTTTGTC TATTTTTGGA CAACACTGCC CTGATTATTG TCATTTTATC AGTTTTGATA
130141  TTTAATAAAG CAACAGATTT GTTTATTTTG GGCCCTTGGA TTTGTGTATT AAATTTGAAC
130201  CCTGTTTGTC AATTTCTATA ATAAAGCTTA TTGGGAATCT GATTAGGATT ACAATGGTTT
130261  TGTAGATCAG TTTGGGGACA ATTAATACCT TTAAAATATT GACCGCTTCA ACTGTAAATA
130321  TACTCCTCCA TTATTTAGTT TTCCTGTTTA ATTTATCTGA GTAATACATT ATAGTTTTCT
130381  TCGTAGAAGT CAGATACGTA GAAAATTCAA AGCCCAAGTG CAATAGCTCA TGTCTGTAAT
130441  ACCAGCACTT TGGGAGGCCG ATGTGGGTGG ATCACCTGAG GTCAGGAGTT TGAGACCAGA
130501  CTGGCCAACA TGGTGAAACC TCATCTCTAG TAAAAATACA AAAATTAGCT GGGTGTGGTG
130561  GCGGGCACCT GTAATCCCAG CTAATCAGGA GACTGAGGCA GGAGAATCGC TTGAACCCAG
130621  GAGGCAGAGG TTGCAGTGAG CCAAGTTCCT GTCACTGCAC CCCACCCTGG GCGACAGAGC
130681  GAGACTTCGT CTCAAAAAAA CAAAAAAAAG AACATTCAAA TAATCAATGT AGATAATTCA
130741  AATAACTAAA AAATGAACAG TTATTAAAAT ATCAGGATAT AAAAGCAAAA AAATCAATAA
130801  CCTCCATATA TACAAAATGG CCAGTTAGAG AAAAAAAAAA GAATAGGCGA GACTTAAAAA
130861  GGCTGGGAAT CTCCCTGAAA ATCTTTGAGA GCCTTGGCCC TGCCCTCAGG GATTTCTCTG
130921  GCTTCATGCC CAGATATGGG TACAGTTCCT TGTTTAAAAA AATTTTGCTC CATCAATCAA
130981  CAAGGGGCTC CTTCCTCAGA GCACAAGGAC CTCCATAACA CCGGACACTA GATGTCTAAG
131041  GGACACCTCT TAAGGAAGTT AGACTTCCAA AGAATGGTGT TTCCTCTGTC CCCAAACTCT
131101  GGAACTCACA GCACAACTGC TCCTTGGAGT TCGGTTTCAA ATCTACAAGG CTGTCATGGA
131161  GGTTGCAGAC CAAGTCCGTG GCCTCAGTGT CCGGATGTAC GGTGGCCTTG GCACCTGAAT
131221  GTGAGAACAT GACCTCCCTG AAACCACCAC AAGTATTGTT TCATGTTATG TATGTTTTTT
131281  CTTATCTGAA ATTCCTTTTC TTTAAAAATT CAAATTACAT ATTTTTCAAG CCCCTGAACA
131341  AGCTTCATGA GCATTTATTG AACCCACAGC TTTTAAAACC TACTGAACAC TTTGCTCTAT
131401  GTTGTCATTC ACTATCCACC AATTATTTAA TTATTGATCA ATATTGTTTC CTTAGTGTTG
131461  GGATCATTTA TGCATGTATT TCTTTTATAT TGCATATTTT ATATTTCTGC ATTACAGTTA
131521  TTACATATTA CTTTTGCTAC AGTAATAGTT CAGAAGTGTA CATCCAAAAT TTAGCTGTGA
131581  AGTGGATGGA CTGAGGCAGA ACTGGAGGCA AGAAAATGTC ACAGTAATTC TAAAAAAGAT
131641  GATGTACAAT TAGAGCAAGA GAGTAGCACT GAAATTGAAG AAAAATAGAT GCGTTTGAGA
131701  GAAAATTAGG AGGTAGAATC AACAGATTAG ATGTAGGGAT GAGAAGGGTC AAAGATGACA
131761  CTAGGGTTTT TAACTGGAGC AAGTAGGTAG ACAGAACATT TCTTCCTGAA AGGGCAGGTC
131821  AGATCATGTG TTGTCTCAAA GGGCATGAAG AGTAGAAAGC CTGGGACAGA TCCTGAGATG
131881  ACCAATACCC ATGGTGCAGG GAGAGGGAGG GAGATCTGCT AAAAAGACTG CAAATGTCAG
131941  GATAGTAGAA AATCATGAGT GTGTGATGTC CTGGAAGTTG AGACAGTATC ACATTTGAGA
132001  ACATTTAAAT TGGTAACTCT GACAAAACCT GGAGGCCAAC TGTGAATGCC CATGAGAGTG
132061  AGAAGCTCCC ACACTTTTGT GGGCATCAGA AAGCCCACCA GGTTCCTGCA GTGAAGATCT
132121  GAGAAGGATC CTCTTGTGGC TTTGGCAGGG AGAGAAGAAT TATTATGAAA TACACCCCAG
132181  AACCTTCTTC AAAACAAAGG CCTACTCTCA AGGGGAAAAC ATTTTGCCAG AGTCTTATCC
132241  CAGCTGGGAG AAGGTAATTC TTCCCACTGC AGCCTCATCT AGGCTTTCTG TCTCACTTAA
132301  GGGAAGAAAA TTAGTCAACA GGGATCAGAG CTTCATGAAA ATAAATTGGA AATGGTGCAG
132361  CCAGGAAAGG AGCAAAGGTC TGAGGAGGAG GAGAAGGAGG AAGAGGAGTT GTATCATTAT
132421  AAATACTTGA GGAAGAGGAG GAGAAGGAGG AGGAGGAGGA GTTGTATCAT TATAAACACT
132481  TGAGGAAGAG GAGGAGGAGA AGGAGGAGGA GGAGTTGTAT CATTATAAAC ACTTGAGGAA
132541  GAGGAGGAGG AGAAGGAGGA GGAGGAGGAG TTGTATCATT ATAAACACTT GTGACGGTCC
132601  CAGCCCCAAG ATATAGGCAT GCTAATAAAC TGAGGCTTAA CACTTTGACT ACAGAATGCT
132661  GCTTCTCCCT AACACCATCA AGGCTCCAAC TGAATAACAA TGAATTATGA ATGAAAGAGC
132721  TGTAAGGAGA GACAAAAGTT AGAATGAGAC AAGTATTGTT ATCTAGAGAT GCCAAGAAGG
132781  CAAGGAAGAT AACTAAAAAG GCACTCTGGA TTTAGAAATA GGAAGTCATT AGTGACCTTG
```

Figure 9 (Page 41 of 74)

132841 TAAATAATGG AGCCAGAGGA ATACCAAGGG CAGAAGCCTC ACTATAGTGT GTTGCACCTG
132901 TCAGAGGTCA GGAGGTGTAA CTGACTCTCC CACAGTGTGG CTTTGGAAGA GAGAAGTCAG
132961 CAGCTGCATG GAGATTTGGG AGAGGGAAAG CTTTTTTTTT TTTTTTTTAA TTGGAAAAGA
133021 CTGAGCTATG TGTAAATAGA ATAAGACAGG AAGAGTGTAG ACACAGGAAA GAGGGCAGAC
133081 AAAAACAAGT GCACAGTTAT CTAAGGGAAA CAATGGGATC AAGCTGCAAG TATATAAACT
133141 TGTCTTGATA GAAGAATCCT TGATCTGGTT TATTCAGTGT TTGGTCCAAA CCCACATCCC
133201 TGTTCTGCCT GTCTCTGACT TGCTCTGTGC CCCAGAAGCC CAGCTTCTAC AGATAGCATT
133261 AGCTGGGCAG CCCTGCCCTC TTGCAACAGC TGGATTTGGC CAGTGATCAG CCCAGCAGGA
133321 ATGTAGATGG CAAAGGAGAG AGAGGTTAGT GTACTTATTC CCTGCATCAC CCCCCTGCTT
133381 GGTGGGCAGC TCTTCCTCCA CAGTCCCAGC TCTGGCCTAG CTCTGGTTAC AGGTTCCCTC
133441 CCATTGCCTC TTCAGATTTA AAGGTGTGTC TGTCAGGGTA TAACTGGGAG CTAGAAATTG
133501 CACTGAAATT GAACAAAGAA TTTTATGGGA ATGGTTGTTA ACTAGTTATA AGAGGACTGA
133561 AAATGGAAAA GTGGAACAAA CGTATCAGAG ATAGTAATGA CAGAAAGCAA CTACCACCTC
133621 CAGGTTTAGG AGAACAAGGA AAAGATTCTT TGAAGAGATC CCCAGAACTG GGACCTCTGA
133681 GGAGTGTATG CTGGACCACT GATGATGATA TGTCTGTAGA TAGAGGCATG ATGAGGCTGA
133741 TTTTAGGAGC ATGGAAGATC TCCAAACTGA AGCCAACTGC TGTTACTGGA TTCAACTGCC
133801 ACTGCCAGGT TGAAGAACCC ATTCTGTGAG GATGTCAACA AACAAAGTGG GAAATCTTTT
133861 CACATCCTTC CAGCCCTCTA GTCTTCCTCC AGTGCTTTCT ATTGGTAGGG TTTGGGGAGG
133921 TGGCTAGCAA AGCGGTATTG GAAAAGATAG AAGAGACTAA ATCTTCATAA CCAGCACAGG
133981 GTGACACTGG ATCACTACTG TTGCTGATCT TGGGCTGCCT CATATCCCCT GTTCTTCCCA
134041 TTAGCCCTGT CACAACTTTG TAGATATCCC TTCATTATAT GCCCTTCATA TATTCTTTTG
134101 GTTTAACTTT TTCTGTTGGA ATCCTAATAT GGCACTCCTC CATTTTTCAG GACCAAAAGA
134161 GTATAAAAGA TTATCTTTTA CCAAAAAAAA GACAAAAAAC TGATCTAATT CCTGATTTGA
134221 TCATTACACA ATCTATACAT GTATCAAAAT ATCACATAGT ACCCCATAAA TATATACAAC
134281 TGTGTCCATT AAAAATAAAA ATTAAAGAAA AGATGGTAAA TATAGCTCTG TCAGGCAGTG
134341 GAGGTTTTAC CACGATGGCT GTTATTTCCC CCATGAAGGG GGGAGTGAGG GAGCAGCTGA
134401 AAGTAGGTGC TTATAGGGGT ATAGAGGGGC TCAAAGCTTT GAGAGAGGAG AATGTCTGAA
134461 AGAGCTGCCA AATAGCATGC AGGTCCCATG GGGGCAGAGC CTCTGCTCAT TCACCAGTGC
134521 CTCTTCAATA TCTACACTTA AGCCTAACAC AAAGTGTGTG CTTAATAAGT ATTTGCTGAG
134581 TATGTAAAGT GGAAACAGAA CCAATCTGGC AAACTTTGTA GGACTGGTGG GCAATGAAGA
134641 TCAGTCAGGT AAAATCTGTG GATATAAATT TATATTGATC AAAAAATTCA AGGTTAGGTG
134701 TTTTTCTTCA GTCATGCTCA ACGATGCTTC AGCCATGCTC AACTCTTCTG TAGCCACAGA
134761 AAAAAGTTTA CCCATAATCG AGCTGTGTCT GTGTCTGAAT AATGAAAAGA CCATGATGCA
134821 AGGGAGTTGG AGACACAGAA ACAGTGTTTG AAGTAATGGG TAATGGAAGC ATGCTACCAG
134881 GGAAAGGAAA GAAGTGGCAA TAGGAAGGAA CAGAGATCTG TGGTCCTATG TCCCCTGAGC
134941 ATATTCACAT GTTAAAGCTA ATTCAGTTTT CAATCATCAT TAAAATTTTG TTCCTAAATA
135001 TATGGCCATT ATTTTCCACA ACCACACTAA AACTTTATTA CCTCTGGCAA GTGACTATGC
135061 AAGTAACTAA GAGCAAAAAT ATCCACAACT ACCATTTGAG CTATCAATTT AGGGAAAGTC
135121 ATCTGGCTAT AATCTAAGTG ACCCTCCACT GAATGTCAGT ATCTTTGCAT ATGTGATTTA
135181 AATCTGGGCC TTCGCAACAC CATGAACTGT TCTTGTCTTG AATATCCAGA TTGAAGGAAA
135241 TAATCTGAGT AGTTACGAGT CCTGAAGCTA GAAAGATGGA AACCCCATTT GCTCATCAGA
135301 AAGCCTTAGA GCTTGGGCGC TGGCGGGTCC TGTCTCACCG GGACAGAGGG GCTCTTTCCT
135361 CCCCATCTGA TAGTCTGATA ACTAGAGAAG CCGGCCAACT TATTCTCCAA GAAGGAGCCA
135421 TCTTAGTTCC TCCTGAAATG TTCATATTTA GAAATTATTG TTTGTCAGTA ATTTAACCCC
135481 TTAATGGGCT TGCCTTGTGG TCCATACCAC TGAGTGCAGA GCTTGCCTGG AAGAATTGTG
135541 AGGGCCATTC CATCTTCCAG GCAGTAGAGT TCAGTACTTC TTTAAAATTG CTGCTGAACT
135601 CTGTATTTGA AAAGAAAGAA TCATTTGGGT GTGGTAGCTC ACACCTGTAA TCCTAGCGCT
135661 TTGGGAGGCT GAGGTGGGAG GATCATTTGA TGCCAGGAGG ACCACTTGAG ACCACCCTGG
135721 GTAACATAGC AAGACCCTGT CTTTAGAAAA AAAAAATACA ATAAAATAAA TACAATAAAA
135781 ATAAAAGCAA AAAGAAAGAG TCCATCTTAG GGACAGACTG TAACTACTCA CTGGAGCTTA
135841 CCTTTACATA GTTCAGGATC AATTATAATA AAACACTTTT GTGCAGATTC AATAGGATTA
135901 TTTTAATCCC CATCATCTCT CTGAGTTTCC AGTCAGTTTC TCTGCATGTA GACACCCTTC
135961 TCCAGCCCAC CATTGTCTCT CCTCCTATAG CTCCACCAAC AAATCAGAAC TTTTTCTAAC
136021 TGCACCTAGT GCACCTAGAG TCTACTCCAG AATGCTCATG GAGAAAGTTT CTGAAAGGTA

Figure 9 (Page 42 of 74)

```
136081  AAACTCTGAA TGATATTTGT AGCTAAAGGG AGACTTGCTA GAGACAATAA GCTAATAGTT
136141  GTAGACTTCA GTAGAAGAGG AATGACACTG CAATGTCAGG GTGCAGGACT TCAAGAGGGC
136201  AGAGTATGGA AACCCAATGG GAAAAATGCT CACCAGGAAC ATGAAGAGAA GGAATTACGT
136261  GTAAGGATTT CTCAATGTGT TCCCAAATTT GCCCAGCAGA GGGAGGCCTC GGGTTGATGG
136321  CAGGCTGACC ACACAATTAA AGAAGGCTGA ACCTGGGGGC TTTTAACAAC CATCGTGGGC
136381  TCTACTGTAA GCATTTAGAA AAAGAAAGTT ATCCATTCAA AAATATATAT ATTTTTAAAC
136441  TTCAGAACAA AATTATGAAG AGCTATATTT ACTTTTCTAC ATTCTAATTT TTATAAATCT
136501  GAGTATATTT TGCATATATT GTTATAGTAC ATATTCAATT TTGTATTTTG CTGTTTTCAC
136561  TTAACCATTT TTACTAGATT ACTCTGTGTT CATAATAATC ACTTTTTTAA AACTTTTATT
136621  TTTATTTATT TATTTTTTTT TTGAGTCAGA GTCACACTCT GTCGCCCAGG CTGGAGTGCA
136681  GTGGCGTGAT CTTGGCTTAC TGCAACTTCC ACCTCCTGGA TTCAAGCAGT TCTCCTGCCT
136741  TAGCCTCCTG AGCAGCTGGG ATTACAGGTG TGCACCACCA AGCCCGGCTA ATTTTTGTAT
136801  TTTTAGTAAA GACGGGGTTT CACCATGTTG GTCAGGCTGG TCTCCAACTC CTGACCTCAT
136861  GATCTGCCCA CCTTGGCCTC CCAAAGTGCT GGGATAATCA CTTTTTATGC TGCATAATTC
136921  TTCAGATTTG TCAGTACGAC TGTATTTACA CTCATTTGTT TTATTAGAAA GAATTCCAGA
136981  ATATTTTGGC TGCCCTAATT AATTTTACAA TTAATATGAT TTTGAAATTG GGTATTGGCT
137041  CCTTCTGAAT TGGTTTATTA AAATATATTC TAATGTAATT TATGACATTT TCATCATATT
137101  AGCATATTTA TTCTGTTAGA ATTTCATAAT TTATAAAGCT ACAAACTGTA TGTGATATAG
137161  CTTGTAACTT TATCTCATAA CTTTATGCAG TTACAAGTAG AAATAAAATG TTCCCCTCAA
137221  GATTGCTTAA AATTTTATTA TAAACAAGTG TAAAAAACAA AATCACTAAA ACACTCCCTC
137281  TTTTTTCCCC CAAAATGCAT GTTTCCATTT TAACAGAACC CGTATTTAAT CAGCAGATTT
137341  CTATGGTGGC TAGATTTGTA GACTAAATAT TAAAAGTCCC AAAGCAAATG CATTTTTCTC
137401  TTAAATTTTA CTGACTTTTT TTTTTTTTCT TTTTCTGAGA CGGAGTCTTG CTCTGTCGCC
137461  CAGGCTGGAA TGCAGTGGCA CAATCTCGGC TCACTGCAAC CTCCGCCTCC CGGATTCACG
137521  CCATTCTCCT GCCTCAACCT CCCGAGTAGC TGGGACCACA GGCGCCCGCC ACCACGCCCA
137581  GCTAATTTTT TGTATTTTTA GTAGAGACAG GGTTTCACCG TGTTAGCCGG GATGGTCTCG
137641  ATCTCCTGAC CTCATGATCT GCCCACCTCA GCCTCCCAAA GTGCTAGGAT CACAGGCATG
137701  AGCCACCGCG CCCCGCCTAC TGACTTTTAT CCAAAGAAAA TATAAGAGCT CTTCATCATA
137761  ACGTATGTTT CTTGCTCTTG TTATTAAATA TGACACATTT AGACTTAAAC TGATTTGAAG
137821  GTTTATGACA TTGTTTAAGT TATTACATAA TTAATTCATA AAGATAATGA CTAGTTTGAA
137881  CTACTGACAG CTCACACATC ATCAGTTGAA CAGCAGAAAG CTTATTAAGC TACTTTCTTA
137941  TGTTTCTGTC TCCCAGCTAC TAAAAGAAAC GAAACCCTTC CAGGTGTTAA GGCAAAACTT
138001  TCCTCCCCCT TTCTTCTATA AATCTGATTC CATGTTAGTG AAATTTCTAC TGATGGCTTT
138061  GGTTTCCTCT ATAGTAGAAT AGAGATCCTA TGGCAAAAGT CATGTCTGAC ATGGTAGCAA
138121  ATAGAAATGG GGAAAAGGAA GGTCTGCAAG AGCCAATGTG GGAAATGGGG AGAGGACTGA
138181  CTACAAAAAC CCAGCAGGAA TTCCAGAAGA AAACTCCTCA GGACGGGCAC ATTGGCTCAT
138241  GCCTGTAATC CCAGTACTTT GGGAGGCCGA GGTGGGCAGA TCACTTGAGT CCAGGAGTTT
138301  GAGACCAGCC TGGTCAACAT GGCGAAACCT CATCTCTACA AAAAATAAAA AAATTTGTCA
138361  GGCGTGGTGG CATGCACCTG TAGTCCCAGC TACTCAAGAG ACTTAAGTGG GAGAATCACT
138421  CGAGCCTTGG AGGTGGAGGT TGGTGAGCCG AGATCACGCC ACTGCATTCC AGCCTGGGCG
138481  ACAAAGTGAG ACGCCATCTC AATCAATCAG TCTCCTCGAA AAGCAACATT ATGGAGAGAC
138541  AGGATTCCGT CAAGGCCTGG GGCACACAGG AAAATATTAA GGCAGAAGAG AGTTTCCTCC
138601  CCACACCACA CCGTATCCCA CAGGCACTGC GGATGTGCAT ATGCAAGAGG GGTTGATCCT
138661  AAGAATTTAG AGTCACAGAG GAGGAGGCAC CAAGCAGACT GTGGAGAAAG TCATGACCAG
138721  AAAGGGACAG AATGTAAAGC TTCAGCTGAT TATCTGGCCT CAGGGATTCC AGAGGAACTG
138781  GTCCCAATGG TCTCCTGGTG ATGTAGGTTC TTAGGTTTCT TTTACAGGGG TTTTCTGGGA
138841  GATCGTTGAC CCAGTTAGCA TTCAAGCAAC TTCCACCCTG CACTTTTATT CTTTCCCCTT
138901  CACCTGCTTA GGTTTTATCT GTCCAGGCAA TAATAATAAA ATTATTGAGC CCTGGACATG
138961  TACCTGTAAA GCTCCTTAAA GATGATGCCT TCTAACTCCT CATTCAACAG ATACAAAAAC
139021  ATTACAATAA AATGACTCAT GCAAGACACC CAGGTAGTTT ATAGCAGCTA ATAAAAACAG
139081  AATAACTATA AAATATGGTA AGTTTATAAA AGTTACATTG AGTATACTTT ATAAGAACTG
139141  CTTATTGAGT TTGCCTAATA ACCACACAGC ACAATAATAA TATGTATATA TTTTTAAATA
139201  TGTGTAAATA TGTGTAACAC AAACTTGTAG AAGGTATATC TGAGTACAAC CCTATTCTGT
139261  TTGGTTACCT TTTCTAGTTC ATTATGTAAG TGGCATAGCT ACCTAAGGAC TTATGCTTAT
```

Figure 9 (Page 43 of 74)

```
139321  AAATGTTACT CAAAAAAATA CAGAGGACAT ATGTGGATAG ATAATGGAAG AGATAAGATA
139381  GGTAGGTTGA AGGGTTGGGC TGCCCCTCCA CACCTGTGGG TGTTTCTCGT TAGGTGGAAT
139441  GAGAGACTTG GAAAAGAAAG AGACACAGAG ACAAAGTATA GAGAAAGAAA AAAAGGGGTC
139501  CAGGGGACCG GTGTTCAGCA TACGGAGGAT CCCACCGGCC TCTGAGTTCC CTTAGTATTT
139561  ATTGATCATT ATTGGGTGTT TCTCGGAGAG GGGGATGTGG CAGGGTCAAA GGATAATAGT
139621  GGAGAGAAGG TCAGCAGGTA AACACGTGAA CAAAGGTCTC TGCATCATAA ACAAGGTAAA
139681  GAATTAAGTG CTGTGCTTTA GATATGCATA CACATAAACA TCTCAATGAC TTGAAGAGCA
139741  GTATTGCTGC CAGCATGTCC CACCTCCAGC CCTAAGGCAG TTTTCCCCTA TCTCAGTAGA
139801  TGGAATATAC AATCGGGTTT TACACTGAGA CATTCCATTG CCCAGGGACG AGCAGGAGAC
139861  AGATGCCTTC CTCTTGTCTC AACTGCAAAG AGGCGTTCCT TCCTCTTTTA CTAATCCTCC
139921  TCAGCACAGA CCCTTTACGG GTGTCGGGCT GGGGGACGGT CAGGTCTTTC CCTTCCCACG
139981  AGGCCACATT TCAGACTATC ACATGGGGAG AAACCTTGGA CAATACCTGG CTTTCCTAGG
140041  CAGAGGTCCC TGTGGCCTTC CTCAGTGTTT TGTGTCCCTG AGTACTTGAG ATTAGGGAGT
140101  GGAGATGACT CTTAACGAGC ATGCTGCCTT CAAGCATTTC TTTAACAAAG CACATCTTGC
140161  ACAGCCCTTA ATCCATTTAA CCCTGAGTTG ACACAGCATA TGTCTCAGGG AGCACAGGGT
140221  TGGGGCTAGG GTTAGATTAA CAGCATCTCA AGGCAGAAGA ATTTTTCTTA GTACAGAACA
140281  AAATGGAGTC TCCTATGTCT ACTTCTTTCT ACACAGACAC AGTAACAATG TGATCTCTCT
140341  CTCTTTTCCC CACAGGAGGT GATGGCCGGA AGAACATGGC AGAGGGCAAA ACAAAACAGC
140401  ATTGGGAACA AGCTCTGTTT AAAAGGAGAC TTGTGAACAG CAAAGAGTAG AAAGGGTTCT
140461  CTTACAACTG AAGCCCATGG AAGACAAATG TGTACTGCGT GAGTTTTAAG GCAATAGGAG
140521  TAGTGGGACC TAGGGCACAC CAGAGAGCAT ATTAACTCTC AAACTTTTAA AAACATTATA
140581  TCTGCTGGAC ACAGTGGCTC ACACCTTAAT CCTACAACTT TGGGAGGCCG AGGCGGGCGG
140641  GTGTAGCTTG AGCCCAGGAG TTCGAGACCA ACCTGGGCAA CATGGCAAAA TCCCGTCCCT
140701  ACAAAACAAA CAAACAAAAA ACAAAATTAG CCAGGCACGG TGATGCGTAC CTGTGGTCCC
140761  AGCTACTCAG AGGCTGAGGT GGGAGGATCG CTTGAGCCCC GGGAGGTTAA GGCTGCAGTG
140821  AGCCATGATA ATGCCACTGC ATCTCAGCCT GGGCAACAGA GGGAGAACCT GTCTCAAAAC
140881  AAAAACAAAA ACACACCATA CCCAACCACA ATGCATCTGT CTTAAGTACC AGTACCACAC
140941  CCCTCTACTC ACTACTAAAT AGGTGAGTTC CCAATCCCTG GTAGCAGGTT TAAGCATGTT
141001  ATATTAAAGG TCTTAGGCTA GTGACTCATT CACTCATTAA ACAAATACTT ATTGTGCATC
141061  TACTATAAAC TAAGTACTGT GCTAGGTACA AAAGCAAATA ATCTAAGCTC TATAAACTTT
141121  ACTTTCTTCA TCAACAAAAT GGAGATGTTT TAGGCATCTA CTCATCATTC TGAGCTCCAT
141181  CTTTTGTGAC TGTAGTTGGC AGAGCTTTTT ATCAGTTTCT CTAAATAGCT CTACCAGTCC
141241  CTGGTGGATG CTGGCATGCC CAAAGGATCC ATCCTGATGG CCCTGTCTGC TTACCTTACC
141301  TGCCTGCCTT TGCAGCACCG CTCTGCTCTT CTGCAGGACT TCCCTTATCC TTTGGGGTCT
141361  TGCTGCTCTT AGGCTGCTCT GCTTGTTTTG ATCTGCTTTG CATCACATGT ATGTAAAGGT
141421  CCTTTCCTTA TTTACCCATG ACCAAGGTAT TATGAGATTC TGGAATTTCC CCAAACCACA
141481  TTGATTGCTG GGAGAATAGA AGAAGTGGAT TACAAGTGGA ACTTAGAAGG GGAGTATTCG
141541  AGAAGACGTC TCTGCAAATC CATTTAGAGA GACCTTTCTC CAGTGGTGAC TCAAAGATGC
141601  AGCTCCTTTC ATCCTGTGGC TTGGCCATCT TCAGCACATG GCTCCCAAGG ATGTCCTCAG
141661  GATGGTCTCT AATCCAAGGA GCCTGAAGAG AAAAAAAGGC ATGGAGTATT GTGAGTGGTA
141721  GGTGGTTATG GACCAGTTAT GGAAGAATAC ACATCACTTT TGCCCACCTT CTACTAACCA
141781  GAACTCACAC AGCCATAGAC ACTGACAAGT AGGACTTAAC AAGAATCTAA TTTTGAGTCT
141841  AGGAATACGA CTGTAGCAAA TATTTAACAG CTTCAAACAC AGGTGCATTG CTATCACTAT
141901  GCTTGGCCCA GGCCTGTCTC CCTTTCCTGC CATGTCACAG GGGCCAGCAT TTATGTCTAG
141961  ATTGGGTTGG TTGGGATATT AAGACAATAA TGAACCAATA CAACATCTTG AGCATAAAAC
142021  CAACTGATAC AATGATGTAC AAGTCAGATG ATTCTGATGA TTATGAATTA TGTCAATAAA
142081  AGAAATGTGA TAACTAAGGT AATTTTTGTT TTGGCAAATT TTTGTTTGTT CATGACAGGA
142141  TGAAATCCTG TCATTTGTAG CAACATGGAT GGAATTGCAG GATACTACAT TAAGTGAAAT
142201  AAGCCAGAAA CAGAAAGTTA AACACCACAT GTTCTCACTT ATATGCAGAA GCTAGCTAAC
142261  TAAGTAAATA AGTTTATCTC ATTGAAGTAA AAAGTACAAC AGAGATTACT AGAGGCTGGG
142321  AATGGTAGGG GAAAGAGATG ATAAAGAGAG ATTCATTAAA ATAAGTTACA GCTAGATAAG
142381  AGCAATCAGT TCTAGTGTTC TATTTGTACT ACAGAATGGC AATAGTTAAC AGTAATAAAT
142441  AATTTCAAAG AGCTAGAAAA GAGGACATTG AATGTTTCCA ACACAAAGAA ATGAGAAATG
142501  CTTGAAATAA TGGATATTCT AATTAATTAC CCTGATCTGA TCACTATACA CAGTATGTAT
```

Figure 9 (Page 44 of 74)

```
142561  AAAAATAACA CTATGGGCTG GGCGCAGTGG CTCACACCTG TAATCCCAGC ACTTTGGGAG
142621  GCCAAGGTAA GCAGATCACT TGAGGTCAGG AGTTAGAGAC CAGTCTGGCC AACATAGTGA
142681  AACTCCATCC CTACTAAAAA TACAAAAATC AGCCAGGCGT GGTGGCATGT GCCTGTAATC
142741  CCAGCTACTC AGGAGGCTGA GGCAAGAGAA TTGCTTGAAC CCAGGAGGCG GAGGTTGCAG
142801  TGAGCCGAAA TCGCGCCACT GCACTCCAGC CTGGGTAACA GAGCAAGGCT CTGTTTCAAA
142861  AATAAATAAA TACATAAATA AATATTTTTT AAAAAAAGAA CATCACTATG CACCCCATAT
142921  ATACATATAA TTATTATGTC AATTTGAAAC ATAATTTTGA AAAATGAAAA AATGAAACAC
142981  AAATATGAAT CAATCCTCTC CAAGTTGATA TACTTAAAAG GAAAAAAGTC CGAGGGCTTA
143041  AACTATTCAA TCAAAATTTT ATTAAAATGC TATAGTAATC TGGAAAGTAT TTCAGAATGA
143101  ATTGGTATAA GGTTAGACAC AAAGATCAGT GAAACAAAAT AGAGAACCCA GAAATAGATT
143161  CACACATCTA TGGACAACTG GTTTTGACAA AGGTGTCAAG GCTATTTAAT AAGTAAAAAA
143221  ATCGTCTTTT CAGTAAATGT TTCTTGAACA AGTAGACATC CGGTGTGGGG GAGAGGAGCA
143281  GGAGCCTTAC CTCAAACTTT ATGCAAAAAT TAACTCAAAA TAGACCATAG ACTTAAATGT
143341  AAAAGCTAAA ATTATAAAAC TTCTTTAAAA AATAGGAGAA AATCATCAAC ACCCTAGGAT
143401  TAGCAAAGAT TTCTTTAAAA CAAAACAACA GGTTTATAGT TTATAAAACA TAAATAACAA
143461  AATGATAAAT TTCATCAAAA GTGAAAATTT GCTTTTCAAA AAACATTATA AAATGAAAAG
143521  CAGGAGGCTG AGGCATGAGA ATCACTGGAA CCCGGGAGCT ACAGGTTGCA GTGAGCCAAG
143581  ATGGTGCCAC TGCACTCCAG CCTGGGTGAC AAAGTGAGAC TCTTCCTAAA AAATAAATAA
143641  ATAAATAAAT AAATAGAAAA GAAAAAGAAA AATCACAGGC TGAGAGAAAA TATTTATAAT
143701  ACATGTATCT GACAAAGGAC TCGCACCTGG AAAATATAAG GAACCTTATA ACTTAGTAAG
143761  ATGACAAGCC AAAACAAAGA GTAAAAGTTT TCAACAGACA TTTCACAAAA GAAAACATAC
143821  AAATGGCCAG TATGCACATG AAAAGATTTT AAACATCATT AGTTACTAGG GAAATGCAAG
143881  TCAAAACCAC AATGAGATAC TTCACATTCA ACAGAATAGC TAATGTTAAA AGGACTGACA
143941  ATCCCCAGGG TGAGCAAGGG TGTGGAGGAA ACTACTCTCA TATATTGTGA ATGTAAGAGG
144001  CATTTTATGA TATAACTGAA TTCAGTTTTA TGTATAACTG AATTACGGAT ATGAGAATCT
144061  CAAATGAGGA CGAATGGTTT TTACGCACAA AACATGAGAC ACAAATCTGT AAGAAATATA
144121  AAGTCGTGAC CACGTCCTTT CAGAACTTTA ACCTGTTTGC TGAAGTACGT CAGTAACAAT
144181  GGCAGGGAAA GGGTATCTTA AATTTCACCA CAGCCTCAAA GAGGCCATTT CGTGGATCCG
144241  CTGAGGCTTG GAGTCGGCCT TCTGACCACG AGTCCTGCGG CTATGAAAGA GGAAGCCGCG
144301  GTTCAGGGCG TCCTCGCGAG TCGCGCAGCC CGCCCTGCTC CAGCTGGGGA CACAGGTGGT
144361  CACGGCGCTT TCCAGCTGCA GATCCAGGCG GCAGCCCAAG ATTTGGTCCA GCCGCCAAGG
144421  GGTGGCTCGA GTGACTGACG GGCCTTGAAC GCTCCCAGGA CCCACATCTG GAGAGGGAGG
144481  TGGGGGTGGG GTGCTGAAGT CATTCTTGGG GCCCCTGGGG GCGGGCATGG ACCTGGGTAA
144541  GGCCAGAGAA ATTGACACCT CGTGACATCC CTGGAAGAGA AGTACGTTCA GTGTCACTCC
144601  AGAGCTGAAA GATACCGCCT TCTGGCTGGT CCCTCCTCAC CTACATACTT TTCTAATTTG
144661  TCTGGAGCAG GCCGGGCATC TGTATTATCT GGTTATTTAA ATATCTGGTT ATTTAAAAGC
144721  TCTCCATTAA ATTCACATAC ACGAAAATAA AAATTAAAAA AAATTTTAAA AAAAAGAAAC
144781  AAAAGCTCTC TAATGACCAA GTCCTACACG ATAGTGAATA AATTTTTTTG TGTGGTCCCT
144841  AAAATTGAGT TCATGCCTTT TCTGAAGTAA TAGACGCCCA GAGAAGGGAT CGACTTACCC
144901  ATCATGCCAC AGAGATTAAT TGGCCCCAGA ATTCTTTAGC AGACCGTGTA TATGAACGTC
144961  CTTTGCAATC ATATAAATTA ACTGGGAAAA CCTCATTTAG TATGTTACAT GCCTAGCGTT
145121  TTGTGCCTGA ACACCTTACA AGAACCAGGG ACTATTGCCC CAATATTATA TTTCAGGAAA
145181  GGAAGGCCCA GACAAATGGT GTCACTGGTC CACTTTCACC CAGTTGGTAA ATGAAACCAG
145241  AAATTATAGC TGTACCACAG AAAGGTGAAA ACGTTTCTTT TATAATTTCA CATACAATCT
145301  TTAATGGACC CAGTGTCCAA CACATTAAAG CAAGTGCTCA GGAGTGACAT CAAGATGTAA
145361  AAAATAGTCC TGTCCTCAGG GAGTTTAGGT CTTGGAGAAA AGAGACCCAA GGAGACACAA
145421  GACAAAGGGG AAAGAGAAGG AGCGCTGAAG ACTGAGGACC CTGCCTGTGG ACTGAAGTGA
145481  GGATGGGGAC ACCCGATGCC CGGAATATGA CAGTTTGGAG GGGCCTGAAG GACTCTTCTA
145541  TTCTCTATCA GAAAAACAGA ATTACTCTCC TAACCAGAAA AGGTATTTCA ATTTATATTT
145601  TCCATCACAG CACTTTTCTG GTGATAATTT AATGTGTTTT AAAAAATGTA TCACAGTGAT
145661  GGCCTGGTGT GAAATAAATA ATAAAATTTT AAGAATTAAA AAATATAAAA ATCTTTTATA
145721  TAGACATTAG GAGTTACAAG GATAACTGTG AATTATAATT AGTAATTAAA TTGAAATACT
145781  GATTATTTTC ATTTTTATTT AATTATTTAA TAAAACCTAT TTAACATTTA ATATTTATCA
145841  GTAATTAAAT CTAATTGTTA ATATTTATTA TTATAAATTA TTTTAGAATT AAAAATAAGT
```

Figure 9 (Page 45 of 74)

```
145901  GTAGAAGCGA GGCATGGTGG CTCAAGCCTG TAATCCCAAC ACTTTGGGAG GCTAAGGTGG
145961  GAGGATTGCT TGAGCCCAGT AGTTCAAGAC CAGCCTGGGC AACATGGAGA AACCCTGTCT
146021  CAATACAAAA AAATGAGCCA TGTGTGGTGG TGCGTGCCTG TATTCCCAGC CATTCTGGAG
146081  GCTGAGGTGG GAGGATGACT TGAGCCTAGG CAGTCAAGGC TGCAGTGAGC CCTGATCTTG
146141  CCACTGCACT CCAGTCTGGG CAACAGAGCA AGACCCTGTG TCAATATACA TATGGACAAA
146201  CTTAAAATTT AAAATGAAAG CATACTACTG ATACAGAATT GAGTAGAGAT GCAAAGCTAG
146261  TCCTATAACC AGAACAATAA AGATAAAAAG GAGAGTGGAA GAAGGTATGT CATGAATTTC
146321  ATGATAAATG GCAATTGCAA ATATCCTGTA GCAGAACAAA ACAACAAAAT TGTAGATAAA
146381  ACATATCCAA CCCTTTGGAA GGCCAAGGAG GGAGGATTGT TTGAGCCCAG AAGTTGGAGA
146441  CCAGCCTGGG CAACATAGTG AGACCCTGTA TCTAAAAAGG AAGAAAGAAA AAAAAAAAAA
146501  AGGATGATAA AGTAGACAAT ATTGAAAGCC ATTTTCTGCA AATACATAGT GAATTTGATC
146561  AGTAATTTTC TTCCAACAGT GCAAAAATGA ATAGATATTA GTTGCCTGAA ATAAAAATCA
146621  AATATCCAAC AAAAAATATT GACTATCTAA TAGTATCTAA GCTAGTAAAT TTGGCCAGTT
146681  ATAAAATGTC TTAAATTTTT ATTTAAAAAA AGAAAACCAT ATTTATAAGA AGAGGTGATA
146741  AAGAGAAATT ATTTCAGTTA TGAAGATTTT GTTAGAAAAC TATGAGAAAA AAACTATTTT
146801  TTGTTTTCAA AAAGTGAAAG ATTAAGTTAC CAAACAGTTG CTAAAGAATA CCAGATGGCT
146861  GAGCGTGGTG ACTTATGCCT GTAATCCCAG TACTTTGGAA GGCCAAGGCA GGAGGATCAT
146921  TTTAGGCCTG GAGTTCGAGA CCAGCCTGGG CACTGTAGCA AGACCCGTCT CTATTAAAAA
146981  AAAAAAAAAA AAAAAAAAAG AATACCAGAC CTTGCTAACA ATAGCAAAGA TCAATTAATT
147041  CAAAATTTGA AAAACTGTAA TTTATTTAGC TTTAGAGTAC TCTCGTGATA TGAGATTGCC
147101  AAATTAATAC TTTGGGTGCA TTTCTTTTCT CAAAGGACTT GCAAATTTAC AAAGAAGTGT
147161  TGAAGAAAAG CCACACATTG GCAGGTAATG TTTGCAAAAG ACAGATCTGA TGAAGAACAA
147221  TATTTTTAGA ATATACAAAG AATACTTAAA ACTCAACAGT AAGAAAATAA CCTGATTTAA
147281  AGCAGGCCAA TGACCTGAAC ATCTGTTCAC CAAAGAAGAT ACACAGATGC AAGTATGCAT
147341  ATGAAAAGAT GCTTGACATC ATGTCATTAG GGAACTGCAA ATTAAAACAA GTAGATACCA
147401  CTGCATACCT AGTAGAATGA CCAAAATTTA GAACACTGTC AGCACCAAAG GTTGCAAAGA
147461  TATGTAGCAA TAGTAACTTG TTCATTACTG GTGAGAATGC AAAATGTGCA ATCACTTTGG
147521  AAGACAGTTT GGTGGTTTCT TACAAAAGTA ACCATACTTT TACCATAAGA TTCACCAATC
147581  ACACTCCTTA GTATTTATCC AAAGGAATTG AAAACTTATC TCCACACAAA AACCTGCACA
147641  TAGATGTTTA TAGCAGCTTT ATTCATAATT TATCCAAAAC TTGGAAACAA GATGTCTTTC
147701  AGTAGGTAAG TGGATAACTG TGGTACTTCT GAATAATGGA ATGTTATTTA GAGTTAAAAA
147761  GAAATGCATT CACTTTGGGA GGCCGAAGTG GGTGGATTGC TTGAGGCCAG GAGTTTGAGA
147821  CCAGCCTGGT CAACATGGGA AAACCCCAAT TAGCCGGGCA TAGTGGCGTG AGCCTGTAAT
147881  CCCAGCTACT CGGGAGGCTG AGATATGAGA ATCGTTTGAA CCTGGGAGAT GGAGGTTGCA
147941  GTGAGCCAGT GCCACTGCAC TTCAGCCTGG GCAACAGAGC AAGACTCCTC TGTCTCAAAA
148001  AAAAAAAAAA AAAAAAAAAA AAAAAAAGAA AGAAAAGAAA AAAGAAAAAG AAAAAGAAAA
148061  GAAACGATCA AGCCATGAAA ACACATGAAG GAAACTTAAA TGTATGTTAC TAAAAAGCCA
148121  ACCTGAAAAG ACTGCATACT ATATGACTCC AACTGATGCA GGGCAAGCAA GCCAAAAATT
148181  AGGGCTTAGC CCGGGAAGAA TTCAAGGGTG AAGTGGTGGT GTTAGCAACT TTTACTGAAG
148241  CAGCAGTGTA CAACAGCAGA ACAGGTACTG CTCCTTGCTG AGCAGGGCTA ACCCATAAGT
148301  AATGTGCCCA GAGTAGCAGC TCAGGGGCAG TTCTGCAGTA ATATACCTGC TTTTAGTTAA
148361  GTGCATGTTA AGGGGGATTA TGCAGAAATT TCTAGAAAAA GAGTGGTAAC TTCGGAGTAG
148421  GTACAGAGGA AAGAAGTCGA TAATGTCCTG TTGTTGCCAT GGCAACGAAA AACTGACATG
148481  GCGCTGGTGG GCGTGTCTTA TGGAGAGGTG CTTTAACCTC GTCCCTGTTT CGGCTAGTCT
148541  TCAATCTGGT CCGGAGTAAA GTCCCTGCCT CCGGAGTTCA CTCCTGCTTC CTGCTTCACA
148601  ACTGTATGAC ACTCTAGAAA AGACAGTAAC TATGGACACA GTCAAAAGAT TAGTTGATAG
148661  AAATTGGGTG ACAGGAAGTG TTGAAAAGGC AGAACACAGG ATTTTTAGGG CAGTGAAACT
148721  TCTGTGATAC TATAATGGTG AATACATGAC ATTATACATT TGTCAAAACC CATAGAAAGC
148781  ACAACACCAA GAATAAACCC TAATGTAAAT TACAGACTTT CGTTGATAAT GACGTGTCAA
148841  TGTAAGTTCA ATTGTAATAA ATGTACTACT GTGGTGCTGG ATGTCTATGG TGGGGGGACA
148901  TTTTTGCTTC AATAGTTACA GTTGAAGTAA ATGTTTGTGT TTCCCACAAT GCATATGTAG
148961  AAACTCTCAC ATTCAATGTG ATGGTCTTTG GAGGTGGGCT CTTTGGGTGA TAGTTAGGTT
149021  TAGTTGAGAT CCTAGCAGAT CGAGTCTTCA TGATGGGCAT GATGGGACTG GTCCCTTATA
149081  AGAAAAGACC AGAAAGCTAG CTCTCTCTTT GCCATGTGAA GACATAGCAG GAAGGTAGCC
```

Figure 9 (Page 46 of 74)

```
149141  ATCTGCAAGC TAGGAAAGGG CCTTCACAAA GAATCAACTC AGACCTCAGA ACAGTGAGAG
149201  ATAAATTGTC GTTGTTTAAG TCACTCAGGC TGTGGTATTT TGTTTCAGCA GCCCAACCTA
149261  AGACTGTTAA TTGGATTAGA AATTTCCTTT TGGGGATGGT GTGTGGCGGG GGGTGCGGGG
149321  AGTACCTTTG TTAAGCTTTT ATATCAATGA GTTTGTAGGC TTTTCTTTTT TGGTCATTGA
149381  CTAGGACAGT TTAAATAGTA TGAGTGTGAA GGAGATTGTT GGTCATCTAT TCGATGTCCC
149441  TTCTCTGTTT TTTAATATGA GAACTCCTGA TTTTCAGCCA ACTACCCTGG AAAAAAAGCT
149501  AATCTTTCTG ACTTCTTAAG TGTGGCCATG TACTAAATTC TGGCTAATGC AAGGCAAGCC
149561  AAAGGTTTTA TGATAGGTTT TAGGACACTA GAGTAAAAGA GAGCTGTTGC ACACATGCTC
149621  TTCACCCTAC TTTTGTGTCC TTTTTTCCAT CCTACAACTT GGGTTGTGAG TATGATGGCT
149681  GGAACTTTAG TGGCTCTCTT GGATCCCAGG GGTAATTGAG GGGTGGCTGG AAGGAATCTG
149741  TGATTTTCTG GAGTTTCCAT ACACAAACAA GACCTGGATT TTCTGGGCTT CCCAGACTTC
149801  CACATCTAGA CTTGCTTTAA ATGGGAGAGA AATAAACTTG TTTCAGCCAC TGTCATTTTG
149861  GGCTATTTTA TAGAACTTAA TCTAATCTTC AAGGGTACAT GAATTGCTTT TCCTTAAAAA
149921  AAAAATCAGC CATAAAATCA TCTTCTTTTT TCTTTTGTTC CCCACATTAT TTAGTTGGAG
149981  CTCTGTAACT TTTTTTTTTT TTTTTTTTGA GACAAGGTCT TGCTCTGTCA CTTAGGCTGG
150041  AATTCAGTGG CATGACCATG GCTCACTGCA GCCTTGCCCT CCTAGGCTCA AGCAATCCTC
150101  GTCTCAGCCT CCTGAGTAGC TGAAACTAAG GCACATGCCA CCATGCCCAG CTAATTTCTT
150161  TTCTTTTAGA GATGGGAGCC TTGCCCAGGC TAGTCTCAAA CTCCTAGCCT CAAGTGATCC
150221  TCCCATCTCA GCCTCCCAAA GTGACAGGAT TACAGGTGTG AGCCACCATG CCTGGCTGCT
150281  CTGTAAGTGT CTGAATTTCA TTTTGTATTT ATCAGTCTGT TTAGATTTTC TTTCCCTTCT
150341  TGGGTCAGTT AGGCCATTGG TTTCTTTTTA AAGGTTTTCA AATTTATTTG CATCTAATTC
150401  TTCAAATTAC TCTCAAAATT ATTCCAGTAT ATATTCTTTT GTTCCTATTT TCTTCTGTAT
150461  TCTTTATTAA AATAGCTAAT GATTTATCTA GCAGGACTTA TATTCTTTCC ATAACTTTCC
150521  TGCACCCCAA TTAATCTCCA ATTTTATATT TCTTCTGGCC TTCCTTATAG TTTCCACAGG
150581  TTTATTTTAT TCATTTTTTA AAACTTTTAT TTAATTGTTT ATTTTATTAT CATTCTTTCT
150641  TATTCAGCAA TCTAAGTGCT TAGGGATATA GAATTTCCTC TAAGCAGCAT ATGCTAGGCT
150701  TTAACAATGT TAGGGAGGCC TCCCCTTTCT GGGGAAGACC ACACTTACAT TAACACAGGA
150761  CTGTGGGATG CCAAGAGGTA GAGAAGAGCT TATGAATATC CAGATTACAT CTTCACTGAT
150821  CCTGCACAAA GGTGGGGTTC CTCGGTTACC CACTGGGTCC TATTACCCAA GTCTGGGTCA
150881  GCATACCGAG ACTACGGGTA TATAGAACAA GTGCAACTGG CGATAATCCT TCTGTTGGGG
150941  AGAAAAATCT TTTTTTTCTA TTCATCTTAG GTTCTCCATC TGTGGCCCTA TCAAGTAGAC
151001  TAACAAAAGA CAGATTGACA AGACAGAAAC AAAGCATGTG CATTGTACAA ACACAGGGGA
151061  GTACTGAGAT GAATACTCAA AAGAGGATTT AGAACTTGGG CTTATATAGC ATTTTAAGAA
151121  AAGAATACAT TTTTTAAGTG ACAAGGAAGA CGAAAAGGAC TTTGAGTTTC TAGTGCAGTA
151181  AATTGTGGGA AGGCAACTTT TTCTTTCCCT TTTTTTTTTT TTTTTTTTTA AAAAAAAGAC
151241  TTCTCTGGTG CTATGTCCAG GCTGATAAGA GTCTAAAGTC TCTGGTGACT AACTTTTGTT
151301  CTTCCCCGAG TAAGAAGACA CCTTCACAAT TTCATATCCT GCTTTTAGGC AAACAGGGAG
151361  AGGGCAGAGG TGTTTGTTTG TTTTTAATCT ATTTTTTTTC TCAATTGTCT TCAACTCAAA
151421  ATACTTCTTA TGCCAAAGAT GGCATATTCT GCTACCCTTC ACTTACTACT TACAACCCAG
151481  CCTCTATCAT CATAATTAGA ACTTCTGACC CTGGGGAACA TGGGCAATAG TTTGAACTCT
151541  TTTATATCTC CCTTAGGCAG AGATGGAGGC CCAGCCATGC CTCTGACATC TAGACACAAC
151601  TGTTGCTTCA TTTCTCCTAT TCTCAGAGGT GATGTTGTAG GACTTCAACA AATATCAGTA
151661  AACATTAATT TTTTTTTTCC TTGAGGCACA GCATGATCTT GGCTTACTGC AGCTGCTGCA
151721  GGCTCAAGCA ATTCTCCTGC CTTGGCCTCA CGAGTAGCTG GGTTACAGGC CCCTACCACC
151781  ATGCCCGGCT AATTTTTGTA TTTTTAGTAG AGACAGGGTT TCACCATGTT GGCCAGGCTG
151841  GTGTTGAACT CCTGACCTCA AGTGATCCAC CTGCCTCAGC CTCACATAGT TCTGGGATTA
151901  CAGGCGTGAG CCACCATGCC TGGCCATCAA TTTTTATGTC AACTCTAAAT TATAACATTT
151961  AGCAATTTTG TGACTTTTTA TGGTCATCAT TAATGTTGTT TATGTTTTAG TTGTAGTCCT
152021  GTCATTACTC ACTCGGGTAT GGTAATTTGG TCTTTTTCAA AATGAAGTTA AGGTCTATTT
152081  GCTCTTCTCT GAATCATAAT AAGAACTGCC AACAGCCATT TCAGCAATAA CTATTTACTG
152141  AGATTTTAAA ATATTTCAAG GTAATTGGTC CTAGCAGACT GGAAAATACC AAATTCTTTT
152201  CCAGAACTGA ATCCCCCATC AAAGTTCAAT TTTACTCATA ATTCCCTTTT CATTTGAAGC
152261  ATCTCATTGT AAGCCAGTCT TAACCCTTCT CTCACACTTT GCTTGGCTGT TTCTCAGGTA
152321  GAACTCAGTA AGTCTGGTAG CCTCCAGGAC TGCCGCTTAG ATTATTAAAC AACATGTCAG
```

Figure 9 (Page 47 of 74)

```
152381  TGGTTGGAAG AGTCAATGTT ATTTTGATTT TTCTGTTTTG TTTTGTTTTA AATGCAGTTG
152441  GCGGATAATT GCAGCTTTCT TTCATTCCCT ACATGAGTTC AAATGGCAGC AAACAAACTA
152501  GGAGAACGCA GACCTTCTGA CTTGTGGGTA CCCCTACTCA TCACCTGAAG ACCCTTGGAA
152561  ATCAAAGCCC TGACCCATTA AAGACGGATG GAGACAGCAA CATACGATCA TCACTATTAT
152621  CTTGCTTTGC CCCAGTCCAG GTTAACCATC TGTGGTATTT TTAGTTGCTA AGTCCATATA
152681  TTCAACATAA ATCAATTATA TATCCACTAA AATCTCAGCA CTAGTCTAAC TACTAAGGAA
152741  ATGACAGCGA AGAAAACAGA CCAAACGTCT GCCCTTATGG GATTTATATT ATTTTCTCTG
152801  TGCTGGTTAA ACCAAGGAGC TTCTGCTCTT TTCCTTAGTC ACCTGGGGGA GGCAGAAACA
152861  AAGGAGAATA TTGATAAACC TGGAAATAGG GCCGGAGAGT ATCAGAGAAG GAAGCCTTCG
152921  GGAAAGTAAA GATGTGGCAG CCAGTATTCC CGTTATAAAA GGATACAACT CCGGCCTCAT
152981  AGTCCAGAAA AATTCCCACA AGCAGGGGCT GCTCATGCAG ATGAAGGGAA GTTGGGGGAG
153041  AAGTAAGTGC TACATAGCCT TTCTTTTTGC ACAGCCTGAG GGTCCAGAAT CCAGACTGAG
153101  GCTCTTGCTT CATGCCAGTG CCCCTCTGCA CATTTTCCAT ACAAACTCCT AAATCCCATC
153161  CGGTTCCTTC GCCAACATCC ACTTCAAAGT AACGTCTTCC TGAGGTGAAG CCTTCACAAC
153221  CCAAGACACA GGGGAAGGCA GTAAATCTCC TGGAAGATGT GTCCTGATTC TCCTGGGTGT
153281  ATCCACGAGT CACTTGTCTC CGATCCTCAG AGAGAATTAG TTCGTGATGA GCTGTATCTG
153341  GATCCAGAGT CACACTAACT GCAAAACAAA ACAAAACAAA CAAAAATAAT TTTGTTGCTG
153401  TGAAGAACAC AGGTTATTTT ATTTTATTTT ATTTTGAGAT GGAGTGTTGC TGTCACCCAG
153461  GCTGGAGTGC ACTGGCACTA TCTCAACTCA CTGCAACCTC CACCTCCTGG ATTCAGGCAA
153521  TTCTCCTGCC TCAGCCTCCG GAGTAACTGC GACTACAGGT GCGCACCACC ACAAGTGGCT
153581  AATTTTTTTA AATTTTCTGT AGAGATGGGG TTTCGCCATG TTGGCCAGGC TGGTCTCAAA
153641  CTCCTGACCT GAAGTGTTCC ACCCACCTCG GCCTCCCAAA GTGCTGGATT ACACAGGTGT
153701  GAGCCACCAT GCCCAGCCAC AAGTTATTTT CAATAAAACC AGCCTGTGTT CAAACCCAAC
153761  TATTGTTTCT TATAAACTGG GTGAGCTTAG GCAAATCATT TAACTTTCTG AGCCTCAGTT
153821  TGTTAACTAT AAAGTGGAAA TTACCGTATT TGTTGCAGAG AATGGTGGGT AGGATTGAAT
153881  AAGCTTATGT TTGCTTAATG CTTGGTAAAA TTCCTGGTAC ATGGTAACCA CCTAATAAGT
153941  GGTAGTTGTT GGGGTGATCA GGCCCAACAC CAGGCCGTGG GGGCTACAAA GTCCGGCGGG
154001  GTCAAAGGAA TGAGAAAAGA CAAGTTAAGA GTGCATAAAG TGGGTCCAGG GTGCCAGCAC
154061  TAGATTGGAG GCTGCAAAGG CCCTAAGCTC TGGGAGCCCA CACTATTTAT TGGTGATCAA
154121  ACAAAGAAGC AGGTGGTGAG GACGTGAGGG TAAACAGGTG AGGGCATGAG GACATGGGGG
154181  TAGAAAGGTA GTGGTGCATT AAGCGTAGCT GTGACAGTTT AGCATTTTCT TTGACACATG
154241  TAGAATATAC TCTGCTGCTT GAGATAGTAG AGGACACGTT TATGAGTGAA AAGCAAGGAA
154301  CCAACAAGTC TGTGCACTTT CCAGAGGCTA TGAGGGGTTT TATGCCCTGA GCCCTGGGTT
154361  CCATCCAAGC CACAAGGGGT TTTATGCCCT AGGCTTAGAT TTGTGGTGCG GCAGGGCAGC
154421  CTTCCACCAT TTGGCACAGA GCTTGGTGTT CCAAAGGCCA CGAGGGGTTT TGGACCCTGG
154481  ACCCCGGACA TCTTCCAAGA CTCTTTTACA TTATGACAGA CAAGCCAGTC CTGCTTCAGC
154541  TCTTCTAACA ACATGTAGTA ATAATGATAT CATCAACATC ATCTTCGTCT TAATTATTCA
154601  AGGATGCCAA GGTACAGAAC TAACCTGTTA ATATGGTTAC CATCCTGTCC AAAGTTCTTC
154661  TCCCATGCAG GACTTCCAGG AATCATGAGA CAGTTGAGCA GAAAGATACC TTTTCCCTTC
154721  TCTACTGAAT AACCACCAAC ATTGAGAATC AGAGAGGGAA AATGACTCAG CTAATGTCTT
154781  AGCTTGTTAT TGGAAGACCC AGGTCTCATG ACACATGCCT AGTCCCATGA CTTTTAATTG
154841  TAAGCTCTTC TCTTTCCCCT CAGATAATGT TCCATAAGCA TTAGTATGAG ATAATAATAC
154901  ACTGAGGACC AATATACATG AAAAATATCA GACTAGAATC AAACAAGACA GAAAAAAGAT
154961  CTGATAACCT AAAGTGAGAT ACTGAACAGT ATGCAGTTTT AAAAATAAAA AATGGTAATA
155021  GGATGTTCTA ACAAGAGAGT TAAGAAACCA CTGTGCTACT GAGTTAAATG TTGATCAGTT
155081  GGTCTGTGAC AATTAAGGAA TTCAAGTATT CAGAAACACT TCCTGTGCTG GATGCTCTCT
155141  GTTTGTTCTT CCAAATAATC CCTCACTTTT CCCTGTCTTG CTCTGTGCCC AGGAAGGCTG
155201  ACATGGACAG ATTAACCAGG CTTTCCGCCC TCTGGCTTGG TTCAGCCAAT GGGAAGCACC
155261  AGAGGAGACC ATAGGGCACA AAGAAGCAGC CTTGGGAGTA TTCAGTACCC CAGTCCCACG
155321  CTATGATTTG GAGGGTCTGC ATTCCTCTGC CTCTGGGCAC ACTCTAGTAT AGTTACAGCT
155381  CCCTACACCT GCCACTTGAG GCCCAGAGGA GGTGATGGCT CTCTAACTGT TCCTAGTTCT
155441  GGGTGCTTCC TGTTCCTTGT GGATTTCCCA ACTCCTCACC TTTGTAAATA CCCTCCTTTT
155501  TCAAACTCTA TTCAGTTAGC TTTTATCAGC CTGACTCACA GAAGTTTGGG GTTTCAATTC
155561  ATATTACCTG AATGACCCAG GAAAACCCAT GTTGAGAAAT TAAAATGTTT ACGGGGTGGT
```

Figure 9 (Page 48 of 74)

```
155621  AATACCACTT AAGAGAAAAA ATATCAATTG GATTTTTAAA ATTCCACCTA TCTATTGGTG
155681  TGACACATCA ACAAAAACAT ATAGAAAGAT TGGAAGCTAA AAGATAGATA ATATAGTCAT
155741  ATACTGTTAT AGTATTATAT CAAAAGATAT TAAGTCAGAG CATTATTAAG AATGGAAGAA
155801  GGGCCAGGTG TGGTGGCTCA TGCCTGTAAT CCCAGCACTT TGGGAGGCCA AGGCAGGCGG
155861  ATCACTTGAA GCCAGGAGTT CAAGACCAGC CTGCCCAACA TGGCAAAACC CTGGCTCTAC
155921  CAAAAATACA ACAATTAGCT GGGCATTGTG GCACATGCCT GTAATCCCAG CTACTTGGGA
155981  GGCTGAAGCA CAAGAATCAC TTGAACCGGG GAGGCAGAGG TTGCAGTGAG CTGAGATTTC
156041  GCCACTACAC TACAGCCTGG GTGACAGAGA GAGATTCTGT CTCAAAAAAA AAAAAAAAGA
156101  AAGAATGAAA GGAGTCACCT AAAAAAGATA ACACAATTTT AAACATAAAT GTACTACATT
156161  ATTAGTGAAT TCATGTTTAG AATTGTGTTA ATATACAAAG CAAAAATTGT AGAATTATAG
156221  GAGAAATGGA CAAATCTACA ATCATCATGG GATGTTTTAA CATTCTTCTT TCCATAATTG
156281  ATAGATCAGG CAGACCAAAA GAAAGAAATA AGGGAAGATA CGGAAGGTCT GAACAATCTA
156341  AGAAGCGCAA TCTCATAGTC AATACATAAA GCTCAGCAAT TGTTTAATAA TAGTAAGCAG
156401  AGAATATGCA GTTTTCTCAG GTATAGATGG AACATGCACT AACTGAGTAA ATACTAGGCA
156461  GAAAACAGTC TGAACAAGTT TCAATAAATC TGTATTACAC AGATCATTTT CTCTAGCCTC
156521  AATATAAGAT TATAAACCAA TAATAAAAAG ATGACTAAAA AGATTCTAAA TATTAGGAAA
156581  TGTAAACTAC TAATAAGTCA TTAGAAGATG TATAGAATGG AACAATAATA AAATGTTATT
156641  TATAAAAATA TACAATGAAG CTAAAGCAGA ATTTTAAGGA AAATTTGTAG GCTTTAAATG
156701  CTTATCTTAG AAAAATTAAA AAGCTGAACA TTAATGAGCC AAGCATCTAA TTTAAATTTT
156761  AAAAAGAACA TAGAAAGCCA AATATAATTT TTTAAAAAGA AAAAATAGAT ATTAAACAAT
156821  ATAACAGTGA AGTTAAAGAA AACAAGAATG CAATAAAGAG GAAAAACAAA CAAAAAAAAA
156881  AGTAGCTTCT TTTAAAAGAA ATTTAATAAA ATAGACATAC CTCCAATGAG ATTTATCAAA
156941  GTAAGACAGA AGGCACAAAT GGAATGAATA CAGAAACTTT TTAAATATTA CAGAACTTTA
157001  TAATAAATCT TATGCTACTA ATAAAATTGA AAGTACTGAT AAAATTATTA CTTCCTAGAA
157061  AAAATATTTC TGAGTAAAAC TCACTCAAAA AACAAATAAA GCATGGGCAG ACCTAACATT
157121  AAAGAAATGA AATCACTACT TTAAATTTTA CCGACAGATA ATAAAACGTG CATCTTTATC
157181  AAGCAAAAAT GGAACTTGTC AGTTTTATAG GAAATTTAGA AGTCAAGGCA TGAGTAATGC
157241  CAATCTCATA CCAAATCCTA CAAAGAATAG AAAATTATGG CTCCCGCTTA TAGACATAGA
157301  TATAGAACTC CTGCACAAAA TAATATAAAT AACAAACCAA ATTTTATATT TGCAACTATA
157361  CATATTATAT GTGTATGTAT TATATATGTT AACATATACA TATATAATAT GTATAGCATA
157421  TGTTCTACAT ATTATATATG TATAGTGTAT GTATTTTACA ATATATAAAT GAAAACCCAA
157481  TCTTTAATAT ATTCATCTAG ATTGTCATAT ATGACATATA TAATACATTA CATCAAAAAT
157541  GTGTACAATA ATCAGGCCAG GCACAGTGAC TCATGCCTGT AATCCCAGCA CGTTGGGAGG
157601  CTGAGGCGGG TCAATCACTT GAGTCCAAGA GTTTGAGACC AGCCTGGTCA ATATGGCCAA
157661  ATTCCATCTC TACAAAAAAT ATGAAAAATT ATCCAGGCAT TGTGGTGCAC ACCAATAGTC
157721  CCAGCTACTC GGGAAGCTGA GGTGAGAGGA TCACTTAAGC CTGGGAGGTG GAGATTGCAG
157781  TGAGTCGAGA TTGCGCCAGT GCACTCCAGC CTGGGTGGCA AAGGGAGACC CTGTCTCAAA
157841  AAAAAATTAA AAAATTAGCC AGGTATGGTG GCCTGTTCCT GTAGTCCCAG CAACTGGGGA
157901  GGCTGAGGTG AGAAGATCAC TTTAGCTCAG GTGGTGGAGC CATGATCGCA CCACTGTACC
157961  ACTCGGCTTG GGCAACAGAG TGAGAGCCTG TCTCGAAAAA ACAAATATAT ACACACAGTA
158021  ATCAATATAT ATATTATATG TACCAATCAA TGCTTCACTT TTATATATAA TATAGATTAC
158081  ATCTTATTAG ATATATAGTA TTCCTTCTCC ATAGATAGAT AGATACAGAT ATAGACATAG
158141  TATCCTCTAT CCATATTAGA GAGAGGATAC TATATATATC TATAGCATAT AGAGATGCTG
158201  TCTCAAAAAA ATTTAAACAT CAGCCAGATG TGGTGGCCCA TGCCTGTAGT CCCAGCTACT
158261  GGGGAGGCTG AAATGAGAGG ATTGCCATTG ATCCTCTCAT TGGTTGAGCC ATAATCGCAC
158321  TACTGCACCA CTCAGCCTGG GAGACAGAGG GAGACCTGAG GTGGAAGGAT ATAGATATAG
158381  ATATATAAAT AAATATGTAT AGAGAGAATA TAATATATGT GTGTATGTGT ATATATATAT
158441  ATTATGAAGA CACTGGGAGA GAATACTATA TATATATGTG TGTGTGTATA TATATATTAT
158501  GAAGACACTG GTGGGATGGT TTCATTACCA ATTGGACCAA GAGTCCAGGT ATGGAGCCAA
158561  CATGCAATGT TGTTGTTGAC TGAGCTGGCA GAGCACTGGT CATAGTTACG GGAAAAGAAG
158621  GTCTCCAATG AGACATACTT AACAAAATAT ATGAACTTGC CATATACGTG GAGAGTTCTG
158681  GTGTGTATAT AGCCTTCTCT CACCAACCTA GCAATTGTCT TCATCATCAT TATAATGCTA
158741  TCAGAGCAAA GATGACAGCT AAATTTTTTT GTCCCTTTCT TCTTCTTTCT CTTCCTTCCC
158801  CTCCCCCACC TCTTTCTCTT CCTCCTCCTC CTTCATCTCT CTTCTTTTTT TTTTTGAGAT
```

Figure 9 (Page 49 of 74)

```
158861  GGAGTCTTAC TCTGTCGCTC AAGCTGGAGT GCAGTGGCAC AATCTCAGCT CACTGCAACC
158921  TCTGCCTTCT GGGTTCAAGC AATTCTGCCT AAGCCTCCAG AGTAGCTAGG ACTGCAAGTG
158981  CACACCACCA CACCTGGCTA ATTTTTGTAT TTTTAGTAGA GATAGGGTTT CACAATGCTG
159041  GCCAGGCTGG TCTCAAACTC CTGCCCTCAA GTGATCCTCC TGCCTCGGCC TCCCAATGTG
159101  CTGGGATTAC AGGCGTAAGC CACTGTACCC GGCCTCCTCC TTTAATAGAC AGGGTCTAGC
159161  TCTGTTGCCC AGGCTGGGTA CAGTGGCGTG ATCATAGCTT ACTGCAGCCT CGAACTCCTG
159221  GGCTCAGGAG ATCCTCCTGC CCTAGTCTCC CCAGTAGCTG GAACTACAGG CATAGCACAC
159281  GGGGCTAATA AAATTAATTA GGTGATAAAA TTCACTGCCC ACTGATGACT AAGCTCTTTG
159341  GACATAAAAG ACACAGACCT TGAAGGAAAA TGTGTCTACT TAATTTTGAA ACCCTATTTA
159401  TCAAAAAACA GGATGAAAAT GCAAAATGCC ATCCACATGC CAGAAGATAT CAGCTATAAT
159461  AAGTTCCCAT AAATCAATAA GGAAAAGAAC CCAATAAAAA TTATTAAACC ACAGTAAATC
159521  ATGGGTAAAT CACAGAGGCC TGAAGGGCTA ATGGACATAC AAAAAGAATC TCAATCTCAC
159581  TAGTGAAATC AGAAAAGCAC AAATTAAGTA CACAATTAGG TACCATTTTA AATCTGTAAG
159641  ACTGTCAAAA TCATAAATTA TATAAGTAAA GACTCAGGGA GTTTTGGAGG AGTGAGAGCT
159701  CTTATATTGC TTGTGGGGTA GAATTGGAAC AATTTCAAGA TCTGTAGTAT CTGGTAAAAT
159761  TATGATATGC ATCCCTCACA CCAGCATGTC ACTCCAAGGT ATCTCCCTGG AGGGAACATT
159821  TACGGGACAC AAGGAAGCAT GGATAAGAAT GTTCACAGTA GTATTGTCTG CAACAGCAAC
159881  AACAACAAAA AAACCCAACT ACACACAACT TCAATGCCCA GTCCACAAGG CAATGGATTA
159941  AATAAACTTC AGGCCGGAGA TGGTGGTTCA TGCCTGTAAT CCCAACACTT TAGAAGGCCG
160001  AGGCGAGAGG ACTGCTTGAG CCCAGGAGTT CAAGACCAGC CTGAACAAAA TAAAGAGATA
160061  GTGTTTCTAC AAAAAATTTT TAAAAAATTA GCCAGACGTG GCAGTGCTTG CCTGTGGTCC
160121  CAGCTACTGG GGAAGCTGAC GTGGGAGGAT TGCTTAAGCC CAGGAATTTA AGGCTGCAGG
160181  GAGCCATGAT GGGGCCATTG CACTCCAGCC TGGGTGACAG AGTGAGACCC TGTCTAAAAG
160241  AGATAAGTAA ATAACAACTT TGCATTTTCT GCCACATTGC AAAATGGTGA GAGAGTGGTT
160301  TCTAGACTCT AGACTCTTTC TATGACTACC TTCTAGTTAT GAGATCCTAC AACACTCACC
160361  TAACCTCTCT GTGTCATATT TCCTCCTCTA TAAAGCAAAA ATGCCCCATA TAGAGAGGAC
160421  TGTGATATAA AACAAGAACC AAGAAAAGTA AAGCTTTTCT AATCTGTCAC AGACTAAAGA
160481  GTGCTCAGTA TATGTGAGTC ATTATTCCTG GTGCTGGTAG GAGTGTATGT TACAACTTTG
160541  AGTCAAGTAA TATGGTACCA TATATTAAGA TTAACAACAA CCTCGGCAAT CCCAGTTTGG
160601  GGTATGTTCC CAAAAGAAAT GAAAGCACCA GGATATAAGG ATGCATGGAC TAGAAAGTTA
160661  TTGTAGCAAC ATTGTAATAA CTAAGTTCTA AAAACAGCCT GAAGCTCCAT CAGTAGGGAT
160721  ATGGTTACAT ATATTTATTA TATTCTTATG GAATATTAGA CATAAAAAGT AACGAGTAAC
160781  ATAGAAGAGA CAGTGTATAT ATGTTACGTT TGTACAAACT TAGGGAAAGA TATAGATCAC
160841  CCTACCTAGA GAAGTCAGAT TGGAGAGGGG TGGGAAAAAC CTTGAACTTT CTCCTTATAT
160901  CCTTTATATT GTTTGACTGA TTAAAATGTA TTTGTTGCAT CTGCTTGAAG GCAATGTAAA
160961  ATAAAATAAA CATACATTTA AAAATAAAAA TAAAATTTAT TCCTATCACT TTTGTAATAA
161021  AGCTGGGCAC AGTGACTAAC ACTTGTAATC CTAGCACTTT GGGAGGCAGA GACAGGCAGA
161081  TCACCTGAGG TCAGGGGTTT GAGACCAGCC TGGCCAACAT TGTGAAACCC CATCTCTACT
161141  AAAAATACAA AAATCAGCCA GGCATAGTGG TGCGTACCTG TAATCCCACG CTACCCGGGA
161201  GGCTGAGGCG CTGGAACCCA GGAGGCAGAG GCTGCAGTGA GCTGAGATTG CGGCACTGCA
161261  AGCCAGCCTG GGTAACAGCG AGACTCCATC TCAAAAAAAA ATTTGAAAAA AGAAAAATTT
161321  TAATAAACAG TGTTTAAGAG GGGAGAAATA TTTAGTTAAA AGATAAGCCC ATTTAAGAAA
161381  TAGTTTCACT TGACCCGGAA GGCGGAGCTT GCAGTGAGCC GAGATCGCAC CACTGCACTC
161441  CAGCCTGGGC GACAGAGCGA GACTCTGTCT CAAAAAAAAA AAAAAAGAAA GAAAGAAAGA
161501  AAGAAATAGT TTCACTTGAA CCATATTATG ATTCCTTCTG TAAAAGATGA GAGTAGGCAA
161561  ATTGACTCAG TGAAATCCCA GCAAAACTTA CACAAAGTCT TGTTCTTCCT TCCTGTCATC
161621  TGTATAGGAT GAAATACAGA GTGCTTTTGG GTTTTGTTGT TGTTTGTTGT TGTGTATTTG
161681  AGGGGAACAC AGGTCTATAA TTCCTTTTCT GAAATCCCTG GAACAAAATG GGCTTTGCCA
161741  TTCAAATTAG TTTAGAAGTT ATAAAGGCAA AAAAATGCAT ATACTCTAAA GTTCAACCCC
161801  ATCATGGCCT AAGGCAGAGC CCTGTAATCA AATTCATCAA TATATCTGCA GCAAAACATT
161861  TATTCAAATT AAGTGGGATA AATAAAGACT TTTAAATAGT CTCATCTCAG TGCCGTTCAG
161921  GGTTGGCCAC TGTGGAAGAC AGACTCAAGG GTGGCCTTCT ATGATTCCTG CCTCTTGGTG
161981  TTCACACCCT CGTAAAATTC CTTGTCTTTG AGTGTGAGCA GGGCTTATGA ATTGCTTCTG
162041  ACCAATAGGA TATGGCAAAG ATGATGGGAT ATAATTTCTA TGATTACGTT TCATTATGTA
```

Figure 9 (Page 50 of 74)

```
162101  AGACTCCATC TTGCTGGCAG ATTTTCTCTA AAGAGTCTGT CTCCTGAGCT CTCTCTGAAG
162161  AAATAACTGG CCATGTTAGA AGCCCATGTG CAAAGAGCTG AGGGGTGGCC TGTAGAAGCT
162221  GTGGGCAACC TCCAGCCAAC AGCCAGAAAT AACCAGGGCC AAAGTCCTGC AACCATCAGG
162281  AAAGAAATTC TGCCTGCTAT CTCAGTGAGC TTGGAAGTGG ATTCTTCCTT AGCCTAGCCT
162341  CCAGATAAGA ACACAGCCTG ACCAACACCT TAACTGCAGC CTTATCAGAC CCTAAGCAGC
162401  AGGCCCAACT AAGCTGTGCC CAGATTCCTG AACCACAAAA ATTGAGATAA CATATCAGTG
162361  TTGTATTAAG GTTCTAAATT ATGGTAATTT GTTTGTACTA ATAGATAACT AATATAACCA
162421  CCAAATCATT TCAGGTTAGG CCAGATTTTT GTAGCCAAAT GAATCATGAT AAAACTTTCC
162481  ATTTTCAGGG GTTTTTTTGA TTTTGTACTT ACGGATACAA ATTTGTGAAA GTATAGTCAG
162541  CACTGATTTA AAAAATCAAG GGAGCAGGAA ACTCAGTAAA TGGTTCTAAC ATTTTGGAAT
162601  CTGTAAATTG GTTGTAACAT TTGTCATCTG TGTTATCTAA GTCAAGTTCC TAAAATATGT
162661  GAATGATAGG TTATCATACT CACCTACTTT TCTTGCATTG CTCTAAGAGT TGGCTGAGCT
162721  ATTGATAATA AACACTATGA TCAGATCTAA TACCATGATG TGCTATTATG ATCATGTGTC
162781  AGTCACAGGG CTAAGCACTT TGTACATGTT GATGCATTTA ATTTTGATGA TAACTCAATG
162841  AAGTAGGAGC TGTTAATATT TTCATTTTTC AGAGGGGGAA ACCAAGTCAC TTGGAGTAAC
162901  ATGGCTAATA AGTGAAAGAA TAAGAATTTG AAAGGTTTGC ACAGATAACC AGAATGCAAT
162961  GCTCATCACA TTCACTGAGC AGTGAATCAT ACTAACTAGA GAAAGTATGA AAGCTCTACT
163021  GAAATTAACT AAACAACCTC TCTGGCTGTG AGCCTGCCAA GGGACAGGTG GTAAACTTGG
163081  TTACTGCATA AGGCCCCTTC TATCCACAGT ATTCAGGAAT TCTTTAGTGA ACATACCTTG
163141  ATGACTCCTT AACATTTTCT TCACATCGAA GTAAAGCTTG GAAACATTGC ACATAGTATG
163201  AAGTTCCAAG GAGACAGCCT CTGATGTTTC CAGCTTCACA GCCCAACTCC TAGAATAAGC
163261  AGAGGCGAGA GATTTCTTCA GAGGTGCATT CCATTCATTT CTATATACGC ACACCCCTCC
163321  CCTCCTGCAT TCAAACAGGA CTTACCTGCT CAAAGTGTCA TTCACATTCT ATAAAGAAAC
163381  AAAAAGAAAA GGTGAGCATG GGAACATCGG TATTTCATGG GGCTTGTCAT GCAGGGCTAT
163441  TCTTCTTTGC TTTACCCGAA GAAGTAAAGA GAGTTACCCT AGTCTTAGTC TTAGATATTG
163501  ATGGATACTC AAACAAAGTA ATTCCCACCA GTCTTAGGTA TTGATGGATA CCCAGATGGA
163561  ATAATTCCTA CCAGCTTCTG GGAGATTCAG CATGGCAGGA TGTTTATCAA CATTTGCATC
163621  TATTCTCATC CTTGCTGAAG TCTGAGGGCC AGGAGCTTTG TCCATGCTCC CTCTGTAAGG
163681  ACTAGCTTTT GGTGATCGGA TTTCCTTCAC AGTGAGCCCA GATTAGAGAA CACTTATCAT
163741  AAAGGTCCTT AGTGGTGAAT CTGTGCACAG CCCTGAGACT GGGCCACTGC CACTAAGATG
163801  GTGGTAGCAG GTATCACACA GTGGTAAAGC AATCATGCTA TACACTCAGC CTTACAGTAT
163861  AGTCACCAAT CCTGTTAGTT AGAACCAGAA TTAATGGCTC CAGATGTTTA TCTTCCTACA
163921  GATAAAGCTG TAGATTGTAC CATAACAGCT CTGGAGCAAG GGTTCTACAA GCAAATCAGG
163981  GAAAAGGTTA TCACTCATTT TGGCTGCCCC ACTTCATCAC CCATCAGTCA CCTAGTGGAG
164041  TATTTCAGGA GAGAGTCAAC AACCAGGGTT CTCTGCACAT GGGCCAAGGA GGCAAACAGT
164101  GGTAAATGTT ATCCCGTGGT TTCATTTGGC CAAGCTGTGT TCCCTCAGAA GTTTATTTTT
164161  CTAATTGACA TAAAGGTACC CTATAAATTA GTGAAGGCCA GCCTGATGGC ACTGATGTAC
164221  ATCTAAAAGA AACATTACTT TATCTTCCCA TGCTTCCTTA CCATTCTCCT TTAATAGCAC
164281  TATAACATAC CTTTTTTCCC TACTCCAAGT ACACAGCCTC ACCTGCAGCA ATTTCTGGGC
164341  TGAGCCCTGA CATTTTTCCT CCAGTTCCAG GATGTGGCTC TTGAGTTCAT TGCTCTTCAG
164401  CCCCAGACCA GCCTCATAGT CCCTCAGTCT ACTCAGAGTC TGTTGTTCTT CTTTCTCCAG
164461  CCTCCAGAGA TAAGACTTCT CTTCCTCATG TAGGAAACAC TGGAGATTCT TAAAGTCAGA
164521  CCGGATTTTT TGTCTCTGAA TCTGTACCTT CTCCTGGAGT CAAGAAAGTA TGGTCAAAAG
164581  GTGGAAGTAA ACCAAATGTC CATCTATGGA TGAATGGATA AACAAGAATG AAAGTCTGAC
164641  ACACGCTACT ACATGACAAG CCTTGAAGAC ATTCAAGCAA AATAAGCCAG AAACAAAAGG
164701  GCAAATATTG TAAGACTTTG CTTATACAAG GCATCTGGAG TAGTTAAGTT CATAGAGACA
164761  GAAAGTAAAA TAGTGGTTAC AAGGTGTTGG CAAGACCAGA AAATGGACAG TTATTGTTTA
164821  ATGGGTAGTG AGTTTCAGTT TAGAAGATGA AAGATGAAAC TGAGTTGCAG TTTGGAGATG
164881  GGAATGGTGA TGGTTGCACA ACAATGTAAC AATGTAAAAG CACTTAATTC TACTGAACTA
164941  TATACTTAAA AGTGGTTAAA TGCTTAAGTG TTATATATAT TTTCACACAA ACACACACAC
165001  ACACACAATC AGCCACTGGG ACATTATTTT CTCATGAGTC ACTGAAGCTG GAAGAATGTC
165061  CCCAGTTTCC TGCTGCAGAG TCATGTGTGG GAGGCAGGCA CTCAGATGTG GAAGAGGTTG
165121  CCTCAGATTC CTTATAGTCA CCCAATTAAT TTTCTTGTTC TTCAGCCAAG ACACAGGAGA
165181  AAGCTGGGTT AGGAGTGCTA GATAATTTAA TTGTGAAACT AGGGCCAAGT TCAAACACTT
```

Figure 9 (Page 51 of 74)

```
165241  TATCAGTTAC AAGGATAAAA AGAGGTTTTT ACTTATGATT TAAGAAGTTA GATTTCTGAG
165301  TTGGAGCGAT TTTCTTGAAG TAAAAGCTTA TAATGAACAT CACCCAGACT GGATTTTAAG
165361  ACAACCAGGC TGGTAAGAGG GTCCATAATT CTTGGCAGGG GGAGCTTTGA GTGTGACAGG
165421  CATTTATTAT GGTTAACTGA GAAATACTGT TCTACTACCC TAGGGTCATC TTAAGCATTC
165481  CTATGTGTAA GACTGACAGA AATCAAGTGA AACTCTCATC TGAGGAGATG TAAAGTTGCA
165541  ATTTCCATTA GTGCTGTCTA AATTAATGCA GTGGGAGTGT GTATTCAGGG CAATTTGAAT
165601  CTATGTTCTT GGATTGCAGT CTTCAAACTT GGCCCAAATA AACTCTCTAC TTATCTTAAA
165661  AAAATAAAAA TTAAAAAATA AAAATAAATT CATACAGTGT TTTGATGACT ATGATATAGA
165721  AGAAGGGTCT TTGACTTAGG ATGAGGTGGA ATTTTTGTGT AGGAGACAGG TGCAGCTTTA
165781  ACTCTTGTAT AGACGGGTTT TCATATATGT TAGTTACAAT CAAGGTCTTC CCCATTGCCC
165841  AAGATCCTAG AAATGGGGGA AGTAAGAGTG TACTCAGGAG CTCAAGAGCA ACATCCACAA
165901  ACAAAGATCA GGGTAGAGGT TAGAGAGGAC TCCTGAAAGA GAGAAAATTG GTAATCAGCT
165961  TGTGGGATTT TACTGCAAGC TAGTGAATTA TATAAATATA AAGATTGGTG CAAAAGTAAT
166021  TGTGGTTTTT GCCTTTACTT TAATGGCAAA GACCGCAATT ACTTTTGCAC AAACCTAAAT
166081  ATTTCCATAA AAGAATGTGG CTCTGATAAT GTGGAGGTTA GTCAGCCACG GAAATAATCT
166141  GAAAGTTTGT AGTTGCAAGT GTGTAGGTTG TTGCATTACT TGTGATGTAC TTATAAATCA
166201  AGTATAGGCC GGGTGCAGTG GCTCACGCCT GTAATCCCAG CACTTTGGGA GGCTGAGGTG
166261  GGTGAATCAC GAGGTCAGGA GATCAAGACC ATCCTGGCCA ACATGGTGAA ACCCCGTCTC
166321  TACTAAAATA CAAAAAATTA GCCAGGCATG GTAGCACATG CCTGTAATCC CAGCTACTCA
166381  AGAGGCTGAG GCAGGGGAAT TGCTTGAACC CGGGAGGTGG ACATTGCAGT GAGCTGAGAT
166441  CGCACCACTA CACTCCAGCA AGACTCCATC TCAAAAAATA GTAATAATTT AAAAATAAAT
166501  AAATAAATAA AGTATATTTC TTTCATCAGC TTCATGAGCT TGAGTAGTAT GAATTTCAAT
166561  CTGGAGTGAT CCTGTTTTCT AAGTGTTCAC AAAGCTTGGT TTCTGTACCT GTAAAGTTGA
166621  GAGCCAGATG CTCCACTGTG GTAAAAGTGC CAGGGTAATG AGTTGAGGCC TGCAAACCAG
166681  GTTTATTTTG AGGTATTTAA AGTTTGAGAC CCACTCGATG CTTTTTCTAG GTAAATAGTC
166741  ATACTAATTC TGCTTCTTCT GACTGAAGTA TCAGGAATCC CAGCCAACTA CAGTTTAAAG
166801  ATGGAAAGAT TGGTGCTAAA TACTCATGGA TGTAAACCTG GAACCAGGGG CATAAGTACA
166861  AATAATGGTT TCTTCCTTGG GTTTCATTTT TTCAATCTGG TTTAGTGAGA ATAAATCCTC
166921  ATTGTGCTTT TCCTCAATCA TCCCCTATGC CTAAGCTCTA GAATGGAAAA TAGCTTGAGA
166981  TCAATGAAGT CAGATTCTTA CTTTCCATTT AGTTATTCGC ATTGCTGTGG ACAGCTTCTG
167041  CTCCGTACAT CTGTCTTCAA GTTGCTTCAG TTTTGTCACA GCTTTCTGGA GCTTTTCCTG
167101  AAGGAAAAAT TTGATAAGTG AAGCCTATTC AATTTGACTC TTCATTAGGG ACCTAGGGGG
167161  AATCCCAATC TTCTAAGATA TATTTGAATA ATAGTGAATA TTTATAGAGT CCTCATTGTT
167221  TTTTGCTAGA GAGCATGCTA AAGGCTATAT GTGCAGGAAC ATACTGATCC CCTTGGCAAC
167281  CCTGAATAGT TGGTAGGATT TTAAACTTCA TTTCTGTGCT GTAGAAAATG AGACTAAGAA
167341  AGGGGTAAAA TAACTTGCCC AAAGGGCTAT GACTGCCAGG TGGTGGAGCA ACAATTGCAA
167401  TCTCATCTGC TGACCCAGAG CCTGAGCTAT GTCCACCACT AGAGTCCTGC CAGGAAAAAG
167461  TTGGATATAG AACAAGGTAA TCATCATCTA AAAGATTTTG TAAAACAACA TGCTGAACCA
167521  AGCAAAACCA ATACCAGTGT TTGGCACACA TGAAATTTTG TGTCTTATGA GTCAGGAAAA
167581  ATCAGGATGC CAGCTGGTTA TTAGAAACAG TTCATGGAAG AGGGGAATTC TGGTATCTTT
167641  TGAACAATGG TATCATGAAT CCAATTTAAA ATGATTTAGT ATTCATGTCA AGCTTTTAGC
167701  TTATTCTTCA AAACAGTTTC TCATATTTCT ATTGAAAGTG ATTTGAAGCT GACCCAAATT
167761  GCTAATTGTA GTCAATGCTG AAAGAATTGT CTCCTGTCCT CTGTAAACCC AACAAGTATA
167821  CTCATTCATT CTCGAGTGTT CTCAGGAAAA GGTTCTATGT AACTGTTTTA GCAAAAGATG
167881  ACATTGTCCT TACTATATGC CAAGTGCTAT TCTATGCATT CTATATTTTA ATGTCCTCAA
167941  AGCTTATAAC CACCTCCTGT GTATGTGTTT TAGGGAGGGA GGACACTGCT ATTATCCCCA
168001  TTTACAGATG GAGAAACCAA GGTGTGAAGA CATTAAGTAA CGTGCCCAAA ATTGCCCATC
168061  TAGTAAGTGA CAAAACTCAA TTTCAACATA AGCTGGTTCC TTTTCTTACT ACTTGGTGGA
168121  AAAGTAATTC AAATGGGAAT ATGATCATCG CAGTTATTAG CTGCTCCATG GAGTTTAAGG
168181  AAGAGCTGCC ATGAGCTGAG TGGTGGTCAT GATTGACATG TCCTTAGAAG GACTTAGAGC
168241  CTTCATACAA GACCACCTCT GCCTCATGGA GGACAGAATA AGGAGCCTGA CACTGGAGAC
168301  AACATTTTCC TCAAATTTAG GCAGGACAGA GAAGGAAAAA GGACATCAGG ACTATGCCCA
168361  TTCCTCCATG CTGCCAACAG CAAAGTCCCA CCTTCCTTAA TATGCTTTCT GGCAAGAAAT
168421  CTGGATGGTA CACAAAACCT CTCCCTCTGC TTCACCTTCC ACAACCAAGC ATTTCCAAAT
```

Figure 9 (Page 52 of 74)

```
168481  CTTTGACTCT TCTTCCTGAA TCGTGCTTAA AATCTGCCCT CTCCTCCCTT TCTTATACGG
168541  ATAGTTTGAA TTTTACTCCT TGATATTCCT TTTATCATAG ACATGCCACA GTAGCTGGGC
168601  ACAGTGGTTC ATGCCTCTAA TCCCAGCATT TTGGGAGGCT GAGATGGGAG GGAGACCAGG
168661  GGTTTGAGGC CAGTATAAGC AAGAAAGGCA GACCATGTCT CTACAAAAAA TAAAAAAATT
168721  ATCCAGGTAT GGTGGGGCAT CCCTGTAGTC CTAGCTACTT GGGAGGCTGA GGTGGGAGGA
168781  TTGCTTGAGC CCCAGAAGGT TGAGGCTGCA GTGAGCCGAG ATTGCACCAT TGTACTCCAA
168841  CCTGGGATAC AGAGCAAGAC CCTACCTCAG AAAAAAAAAA AAAAAAAAAA AAAGTAGAGG
168901  TACCAGAGTG ATATTTTCAA TGTCACTGAC CCTTCATTCC CCAAATGAAA ATCCCCCAAT
168961  AGGTGTTCAA TTTTTACGTG TCCTTCAGGA GTTACTTCTA AGATGAACCA CTCTCTACCC
169021  TAAATGTCCC TCCCCACCAC CAAAACCAGG GACCTCCAGG CAGACATTTT TGATGGTTTG
169081  TTTTCTTTAC TAGACTGTAG ATACCTAAAA GGTGATGGGT CTTTCTTCCC TGTTTTCAGG
169141  CCCTACTGCA TGGCTTTACA TATTGTGGTT TTTCAAATGA TATTCATGGT GTGAAACAAG
169201  AAAAAATGCG GGTGTTTGGT TTGAGAACAA CCTGTTCTAA AGCAAAAAGA AATTCATCAT
169261  AACACAAATG GATAGAGATA AGAGTCCAAC CATCCCATTG AAGGTCAGGA TGGACAGTCT
169321  AGATAATTGA GCAAGAAATC ATCATAAACT ATTTTTCAGA AGAATGACAT GATGAAAGCT
169381  GTATTTCCAA GTCATAATGT TAGGTTTCAA GTTAAATCAT CTCAGCTCCT GGGGAGCAGG
169441  ATAAGACTTG GTACTTACCA AAGCTCCCGG GCCCACACAC TCACCTTGTA GCCCTGGCAT
169501  ACGTCTTCAA CAAGAGCTGT GGTGTGCCCT TTGTGCTGTG GTGCCCGCTC ACAGCGCCAG
169561  CAGATGAGCT GCCCCTCATC TTCGCAGAAC AGGTGGAACT GCTCTCCGTG TTCCTCACAT
169621  GACATTTCTT GATCCGTCTC TTTGAGGGCT TCAATGAGGC TTCCCAGCTG CTTGTTGGGT
169681  CGGAGGCTAT CCATATGAAA TGGAGCCCGA CACTGGGGAC AGCAGAATGT CTCCTGCCTC
169741  AGTTGCTTTT GGCTTGGGTT TTTAAAGAAG TCTGTTATAC ACAAGTGGCA GTAGCTGTGT
169801  CCACAGTTGA TGCTTACTGG GTTCGTCATC AGGCTCAGGC AGATGGAGCA GGTGGCTTCC
169861  TCCATCATCT TCTTGGTGCT GGTGGTTGAG GCCATAGCTT TTATTGAAAA GCTCCAATAT
169921  TGGCTCTAGA GATGGAGATG AAGCAGCCAG AATTTTCCAC CGTGATGAAA ATACACCTCA
169981  CCTGCACCTC TATGTGATGA GCTGGCTGCA ACTGACTTCC ATAGGTCTTG AAGGTTTTCC
170041  TTCCAACCCC TATTATCTCA TTTTGTATTG AAGAAAAGAG GACCTAAAAG GAAGAAGTTG
170101  AGGCTGAGGT TGTTTGGGCC ACGTTTGAGA ACTGCAACCC AAGTGCAGAG TTTCAAGTTG
170161  CCCTCATTAG CAAGCAGTTA CAAGTGGTTG TTTAGAGGAA AAAAAGCAGT TTTAAAGCAG
170221  TTTTAAAGTT GTTTGCCAAG AATTTACATT AAAATAGCAT AAGCTTTTGA CTGGCTATAC
170281  ATTGTTCTTT GTATTACAAA TCTCGGGAAT ATGTAGGTAA TAGATGAGGC AGCCAGTCAG
170341  GAACAAAATG CTTTTAAACA TGGGGTCTTA ACTGAAGACC TATACTCCTG CCTCACTTGT
170401  CCTGATAAAT TTTGCATACC TCACATAGCT CAGACTGCTC TAAATTATTT CATTATTTTT
170461  CTTTTCTCAG TCTTCTAACT TTTTTTTTTT TTTTTAATGA GACGGAGTCT CACTCTGTCA
170521  CCCAGGCTGG AGTGCAGTGA CGCTATCTCG GCTCACTGCA CCTCCGCCTC CCGGGTTCAA
170581  GCGATTCTCC TGCCTCAGCC TCCCGAGTAG TAGCTGGGTC TACAGGTGTG CACCACTACG
170641  CCCAGCTAAT TTTTGTATTT TTAGTAGAGA TGGGGTTTCA CCATGTTGGT TGGCTAGGAT
170701  GGTCTCGATC TCTCGACCTT GTGATCCACC CGCCTCAGCC TCCCAAAGTG CCAGGATTAC
170761  AGGCATGAGC CACCGTGCCC AGCCTCTTTT TCTTTTCTTA TAAGACAAGT TCTCGCTCTC
170821  TTGCCCAGGC TGTAGTGGAG GGCAGTGGCA TGACCACAGC TCACTGCAGC CTCGACCTCC
170881  TGGGTTTAAG CAATCCTCCT GCCTCACCCT GGCAGAGTGG CTGGGACTAC AGGTATGTGC
170941  CACCATGTCC AGCTAAAGTC TTCTCTCCAG AAAGAAGAAA TGCATTGGAA TTTAGAGGAT
171001  ACACAAACAT CTAGCTGTAT AGCTAATACA GTAGCCACTA TCATGAGTAG GAATTTAAAT
171061  TTAACTTAAT AAAAATTAAA ATGAAAAAAT TCAGTTTTTC TGTTCCAGTT GCCACATTTT
171121  GATTGCTTAA TAGTTGCATG TGACTAGTGG CTACATAACA GCCTCAATAT ACAACATTCT
171181  GTTATCACAG AAAGTTACCT TGGACCAAGT GCTGGGAGAA GCAATGCAGG CTTCCTCACA
171241  AAAGCTGTAA AAGAGAGAAC TCAGGGAGTG TGAAACTCTT TCCTATTCTA GTTAACTTCA
171301  AGAATAATTG TTACCAGGCC AGCACGGTGG CTCACGCCTG TAATCCTAGC ACTTTGGGAA
171361  GCCGAGGCGG GCAGATCACC TGAGGTCAGG AGTTTGAGAC CAGCCTGACC AACATGGCAA
171421  AACCTCATCT CTACTAAAAA TACAAAAAGT TAGCTAGATG TGGTGGTGCA CACCTGTAAT
171481  CCCAGCTGCT CAGGAGGCTG AGGAAGGAGA ATGACTTGAG CTCCGGAGGG GGAGGTTGCA
171541  GTGAGCCCAG ATTACACCAC TGCACTCCAG CCTGGGTGAA AGAGCGAGAA TCTGTCTTAA
171601  AAAAAAAAAA AAAAGAATAA TTGGTACCAG AATTACTCTT TGTAATTAGT AGTAACACTT
171661  ATGCAATTGG GTGATCTGTG ACAGATTCCA TTGAAGGAGT ATGGGGAGCT TCACCCCAAT
```

Figure 9 (Page 53 of 74)

```
171721  ATATGACTCC CTGGTATAAT GAGTATTTTG AATTAAAGGC CCTTAGAGAT CAGCAGATGC
171781  TGGAAGAGAC TTTTCCCCTA TCTACATAAA GACCAGTCAC ACTAGACAAG AAGAACAATT
171841  GTTTTTCCTT CCAACCCCTA TTATCTCATT TTGTACTGAA GAAAAGAGGA CTAAGAATGT
171901  AACCAGACCT AATCAGACAC TTTCACAAAA TAATGTCTGT CTCTCAGGCT CATTCATTTT
171961  CCAAAGAGAA CCATTTACAA GTTAAACTCT GTTCCTCCAT TCATTCATCC TCCCAAATAT
172021  TCATTTATTC TCCCTAGTAA TCATTTACTG CCCCTCAAAG AATTACCTAT ATTCTCCTGA
172081  TATCACCCTT CCCCTCTGAA ATAAATATGT ATACATGTAT AAACGTTATA CATACATATT
172141  TATACAGTAT ACATACATAT TTATACATAC ATACATATGC ATACATATTT ATATTTATGT
172201  ATTTATACAT AAGTATTTAT AAATAAGGCT ATATAAGTAT CTACCCCCAT TGGCAGAGGG
172261  GGTAATCACT CTGTGATTCT AGCCCATGTA CTTGTTAATA AATTTGTATG CCTTTTCTCC
172321  AATTAGCCTG CCTTTTGTGA GTCGATTTTT CAGTGAACTT CAGAAGGCAA AGGGGAAGTG
172381  TTCCCTTGGC TCCTACACCA TCATGACAAT AAAATTTGAC TCCACCTCGA CCCCCCCCAT
172441  CCCCCACAAA GAACAACAAC CAACACTGGT TAATAAGGTC GGTTGTTTTT TGTTTGTGTT
172501  TTTGTTGTTG TTGTTGTTGT TGTTGTTTTT GCTTTCAGGA GCAGAGGTAT AATAGGCAAA
172561  AGAAAGAGAA AGGAGAATAG TGAATACCTC TTCTGCAGAG AGGGGTGCCT AAGTGGGACT
172621  TCCCTGGCTA ATAACGTCTT GCTAGAGACC CAACCAGGAG GATAATGGAA GCAATCAAGG
172681  CAACCAGAAC AACCAGAAGA ACCAGTTTAT CCTTTTTGTG CCCTCTCCCT AAACTGAGGG
172741  AATAAGAATT GGAAAGAAGG CTGCAGAGCA GAGGGTTTGC TCCTGAGGAG CAGTTATTTC
172801  TATGGGATCA GAGCTCCTGC AGAACTGGGG AGTTTACTTT TACTATCTCT TCTCCAGGAC
172861  AGGACCTATC TCAAGAGACA TGTTCAGAGT GATTGCAACA TAAAGAGTTT GCAGACCCAA
172921  GGAGGTAGGG AAGGCAGAAA GAAGATGGGG GAGGCCAGGG ATAGGCAACA GAGGAGTGAC
172981  CAGGAGCGAA AAAGCCTGCC TCTTCTGAGA ACCTAGCTGG GCTCTCCCTG TACCCCCGAT
173041  CCCTCCCCCC CGCCCGCCCC CACACCCCTA CTCCTGGGAG CTCCTCTAGG ACAGGGGCAG
173101  AGTCAGGAGG AAGTTTGAAG AGTGCCTAGA ATAAAAAACA GTAATTTAAC TACAATTACC
173161  GGGTAGGCTG TTTTCCTCTC ACAATTTGAT CAGTCTCTTG AAGCCACACA GAATTTCTTC
173221  TGAAGACGTG TATTCCTTGG CAGGCTATTT CCTCCAGTGA TACACCAGGC CCCTCTCTGC
173281  TGGGGTCACT GCTCTTCTGG GGAGATGGGG CTCCCCTCCT TCCAAGGCTC CAGGGTTCCT
173341  GTCCTGGGCC CCACTCATCT AAGTTCTGAA TCTTCTGAGA TTTGGTGTAA AGTCTGGTGA
173401  AAGAAAGAGC AGGAAAGAGG TGAGAGCTGT AAAACAAAGA AAGTCCTGAC CATTTTCAGA
173461  GTTGGAGGGG CCCTGCTGTC ACGAAATATA TTCCCCACCC CACTTGCCAT CAGTACACAC
173521  TCACATATCC ACTGAGAAAA CCTTAGCCTG GACCTTTTCC GTAACCTTCA CTGCTCAGAC
173581  ACTTACATAT TCGCTGCTAG TCCCCTCTGT TGCTGCCACT TCCTGGGTCA GGAAGTTAAC
173641  TCAGACCGGA TTAAACTGAG AAGTGAAACT ACTGTGGGAG GCGGGGCTCA TAAGATTTAG
173701  GAGAAAACTA GTGACGTTGT TCATATCATT TGCACTCCGC CTCTCCGGTA AAGGAGGGGG
173761  AAACGTAGGA AGAAAATATC CTTCTTTTAC AGCAATAAAA AGAAGGAACC AATTAATAAC
173821  CCTGTAAACT ATCATGTGAC CCCAACACAG AGTATCTAAA AACAGGAAGC CTGCAGAGGT
173881  TCAGTTCACA GACTCTGATT TGAGATCTTT CTACTTTTGC CACCAACTCC CTTGGGAGTC
173941  CTTAAGCCTT CCTAGCTGAT GTTACTTCTT TTGCTATTTA TGGGTTGCTT GTGGTTCTAT
174001  AACTGCTCTG AAGGGTGTGG TGGAAAAAGG GGTGGTAACA GCAGTAGGAC TCATTGGCAT
174061  CACAAAATTC ATCTGAGTCA GCTTTCTATT CTTCTCTGTC CCGTTCTGTG TCTTGTTTTT
174121  CTCCTTGCTG TCCTTCTGCA GGACTCAGAT CTTCTTCAAT AGCGAGGGTC AGCCAGGATA
174181  GAAAATGGGA GTCACTAGTG GCCCAGCAGT GAGTGCCCCC AGCTTAGAGC TGTGTGGGAT
174241  CCCTGGGACC ATCACTCTGC TTTGTGCTTT GTGGAGAAAA GGCTGTGGGG TCCAGGGTCA
174301  AGTCCTTAAT GACTTAGCTC CAGCTTCTCC ACTTCAAAAT GAAAGGAAAA GTACTATCAC
174361  CACCCGTTAG AATTATTATT TCATGGGGAA AAAAGATGGA TTACTATCTC ACAATAAGAG
174421  CTTGTCACAT TTATAAGTCT CAGGTGTAAG AGGCATTTAT GATAACAACA TAATAAATGC
174481  TGGCTTAAGT AGATGCAGTG GTCCAAGGGA ACCAGTAAGG GGAGCTCAGG ACACAGGTGG
174541  GAGGAGAAAT TAAACTTGAA TTCTGGGAGC CACTGGCCTG TCTGGGCCCC TGGCCTGCCT
174601  GCTGACCCTG ATAGCCAATG GAACATGGAG TTTGGCCCAG CTGCAATCCC TCTGGTCCAA
174661  CTACTCAAAA TAAAGGCAAG ATTGGGAAAC ACGTTCCTTT CTTCCTATAC CAAGCAGAAG
174721  ACTCTTCAGC ACTGCACCCT CCTGGGTGCT CACAGAGCCT TCTGTTGTTT TGCCACCTAC
174781  GATTCATCAT GCCCTGGCAT GATGGTTGCA GACCCCATGC ATAGCATGGG ACATTCTACT
174841  CCTGAGGCAA CCAGCACACA GAGAGAGGAG AAAGAATGAG CCCCTGAATC CTTGGTCCCA
174901  CGATGAGTCC TTGCAGATAT CTACAACTTT CATTGTTGTG GATGTGACTC TGTACCCAGG
```

Figure 9 (Page 54 of 74)

```
174961  CATGGCTCAT TCCAGATCTG TCCTATTGTC AGAGGTGTTC AAACCAGAAT GACTCCATTT
175021  TGAATGGGGG CTAGGTAAAA TAAGGCTGAG ACCTACTGGG CTGCATTCCC AGGAAGTTAG
175081  GCATTGTAAG TCACAGGATG AAATAGGCAG TTGGCACAAG ACACAGGTCA TAAAGATCTT
175141  GCTGATAAAA CAGGTTGCAG TAAAGAAGCT GACCAAAACC CACCAAAATC AAGATGGCAA
175201  CAAGAGTGGC CTCTAGTCAT TCTCATTGCT CATTATACAC GAATTATAAT GTGTTAGCAA
175261  GTTAGAAGGC ATTCCCACCA GCTCCATAGT GGTTTATAAA TACCATGGCG ATGTCAGGAA
175321  GCTACCCTAT ATAGTCTAAA AAGGGGAGGA ACGCTTGGTT CTGGGAATTG CCCACATCTT
175381  TCCCAGAAAA CATATGAATA ATCCACTCCT TGTTTAGTAC ATAATCAAGA AATAACTGTA
175441  AGTATCTGTA TTAGTCCATT TTCACACTGC TGATCCAGAC ATACCTGAGA CTGAGTAATT
175501  TATACCAGGA AAAAATGTTT CATGCTCTTA CAGTCCCACG TGTCTGGGGA GACCTCACAA
175561  CCACAGCAGA AGGCAAGGAG GAGCAAGTCA GGTCTTACAT GGATGGCAGC AGGCAAAGAG
175621  CTTGTGCAGG GAAATTCCTT CCTATAAAAC CATCAGGTCT CATGAAACTT ATTGACTATC
175681  ATGAGAACAG CAGTATAAAT TACTCAGGGA AAGACCTGCC CCCATGATTC AATTACCTCC
175741  CACCAGGTCC CTCCCACAAT ATGTGGGAAT TTAAGATGAG AGTTAGGTGG GGACACAGCC
175801  AAACCATATC AGTATCCTTA GTCCAGAAGC TGATGCTCTG CCTGTAGAGT AGCCATTCTT
175861  TTATTCCTTT ACTTTCTTGC TTTCACTTTA CTGTGTAGAC TTGCCCCAAA TTCTTTCTCA
175921  CACGAGATCT AAGAACCTTC TCTTAGGGTC TGGGTTGGGA CCCCCTTTCT GGTAACACTA
175981  TCAAAGGATC AGGAAAAGGA AGCTAGTGAA TGCTAAAAAG GAAACAAACT ACCATTACCA
176041  ATAATAACAG CAAGACAAAA GCAAAACGGA TTGTGACAGC TGTCCCATCT CACACCTGTT
176101  TCCCATTGCA GGAAGGAGGG GCTGGTTCAT GCACAGAGTG GCCAATATTA GAAGCAGAGA
176161  GGGGGTGCAG ATGAGACTTC AGGAATATGT TGACAAAGGC AGGCCTAGGG AGAAATCAAC
176221  CTGAACTATC CCCAAGGAGG AATGCATTAT CTCTAATATG TAAAGTTAGG CTTGATCCTG
176281  TGATTATGGG ATATAGGAGT CCAAAGACTC ACAATGGGAA GTAGGTCACT AGAGTCTCCT
176341  TCAGAAGCTC TGTACTGTGT GTTCCCACTG TGGGCAAGAG TCAGCACTCA GCTATTCCTA
176401  GAATGCCTTT CCTCAACTCC TTCAGATTTT GCCTCTCAAC TAACCCTATC CTGACCACTT
176461  GTTAGCAAGT GTACCCCTCT CTCCCTCCCA AACATTTTCA AATCTATTTT GTTCCCATGG
176521  CACTTATCAC TGAATATTTT ACTAATTTAT TTTGTTTAGT GTTTGCTTCC CTCATGAGAA
176581  TGCAAAGGGA TGGATTTTTT TCAATATTGT TCACTGATGA ATCCCAGTAA CTAGAATATT
176641  TCTAAGCATA GTGATGTGCA TTAAATCAAA GAGTAACTTT CTGAATTGCA CTAAACACAC
176701  ATCACAAGAG GTGTGTGCAC ATATGTGCAT GATGCACGTA GTGTGGTGTG GGTGTTGTGT
176761  GGGGTATGTG GTACTGTGTG TGCTGTGTGT GGTATGTGAT ACATAGTTTG TGTTAGTGTG
176821  ATGCATGTGA TGTGGTATGT GTGTGCGTGT CCATACATAT TAGGGGTGGC GGGGATGTTA
176881  ATATGTCAAA TGGTACTAGA AAGTATCAGA ACTCATGGTG CTTACTGGTT TCCCAGAGAG
176941  CTGCTTCTCT CCCACCTGTA GGATATACTG ATGGTTTGGA CAGAGAAGAA ATAAAAAGAA
177001  GGCTGTGACC TACTGGGCTG AGGAAATAAA AACGAAAGTA AAAGAAGAGC TGGGAAAAGA
177061  GAGTGGAGGG GCCAAGGGAA ATTTCCCCTT TGGCTTCTGG GGAAACTTTG CTGAAAAATC
177121  AACTCACAAA TTTATTAACA TGTACACAGG GAGAACCATA GAATGATTAT CCACTTCCCA
177181  AGAGGGCTTA AAAGCTTATA TATTATCCTG GCAAAACAGA TTATGGGAGG GGAAGAAGAG
177241  AAACTCTGTT GATGGGATTA CTGTTGCGGA TTTTTGCTCC TTCGCTCAGC TAGGTCCGGG
177301  TTTTTGTCTC ACAGCCAGGA AGAATTAGGC ATGCAGCCAT CAAAGAATGA GTGGAGTAGA
177361  ATTTATTAAG TGAAAGGAAA GCTCTCAGCA AAGACAAGGG TCCTGAAAGC AGATTTCTGG
177421  TTTGCTCTTC ACAGTTGAAT ACTAGGGCTT AAGACTCAAA TTCCTGACAA CTCCACCCTG
177481  TCCTACCAGT GCATGCAGGC CTTTAGACTG AGCTACTCCA TATTGATTAA TTTCCTGAAC
177541  TGCGCATGTG TTAAGGAAAG GAATCATCCA CTGCAGGCAT GTTTAGGCAA GCCCCCTGTG
177601  CAAGTTCCCT TATCTGCACA AAACATCCGG TGTAAGCACT TGTGGGGCAG GTCAGAGGTT
177661  CTCTGGGTAC CATTCCCTTA CTGTCTGCCT AAAGCAAGCT GGCCAACTCC TTTCATTACT
177721  AGGGAGAGTA AGTAGATCAG GGAACAGAGA TTAACTTGAA CATTATCTTG TGAAAGTCCG
177781  TTCGGGCATG GTTACATTCT TGGTCTTACA GGAAGGGTAA ATAAAAATAA TTGCTCTTTT
177841  TGGTGGGTCT GGATCTTAGG TAGATAAAGA AACTTTAATT CCACGATGTG TTTTGGTAGG
177901  GATAGTTGGT GGCAGGGATG TCAGAGAGAC TTTGAGGCTT CTTCAGTTCA ATATGACCAA
177961  GGGCCATATA TTAGGGTATC AATTTCTGAG CCCCAACAAG AGCTTAGGAG AGATGTGATA
178021  GCATCACAGT GTGAAAGCAA TTTTTTGTCT GTTTTTAGAG ACAGGCTCTT GCACTGTCAC
178081  CCTGGCTGAA GTACAATGGT ACGATCACAG CTCACTGTAA TCTTGAACTG GGTTCAAATG
178141  ATCCTCCCAT CTAAGCATTT CAAAGTGTTG GGATTACAGG CATGAGCCAC GGTACCCAGC
```

Figure 9 (Page 55 of 74)

178201 CTGAAACTGC ACCCACTTTC TGATAAACTT TTCAAATGAC TAAAGGGGAG AGAGTAAGCA
178261 CTACTCAGAG GTAGGAAGAA AGGACACAGG ATTATAGGAT TAAAACAACA ACCACCAAAA
178321 AAAACCAGAC CGGTGTGGTG GCTCACACCT GTAATCACAG CACTTGGGGA GGCTGAGGTG
178381 GGGGGAGTCA CTGGAGGCCA GGAGTTCGAG ACCAGCCTGG CCAACATAGC AAGACGCTGT
178441 CTCTATTAAA AAAAAAAAAT ACCTGCCTTG AGCTAATCAG AATCATGGAC CCTGACAAAG
178501 GATGTCCCAA AGTAAGTCTT AGCATTTTTT TTTTTTTTTT GAGACAGTCT CGCTGTGTTG
178561 CCCAGGCTGA AGTTCAGTGG CGTGATCTCG GCTCACTGCA ACAGCTGCCT CCCAGGCTCA
178621 AGCAATTCTC CCTGCCTTCA GCCTCCCAAG TAGCTGGGAT TACAGATGCC CACCACCACG
178681 CCTGGCTAAT TTTTGTTTTT TTTAATAGAG ATGGGGTTTT GCCATGTTAA CCAGGCTGGT
178741 CTTGAACTCC TGACCTCAAG TGATCTGCCC ACCTTGGCCC CTCCATAGTG CTGGGATTAC
178801 AGGCGTGAGT CACTGCACCC GGCAAAGTCT TAGCATTCTT TACAAACAGT TTGTACCCGT
178861 ATCTCTAAAA GGGAGTAGTG AATTTCACCC CAAAATATGG CTTCCTGATA TAATGAGTAT
178921 TTTGAATGAA AAACTCTTAG AGATCAACAG ACACTAAAGA GACTTTTCCC TAGGTACATA
178981 AAAATAGGAT GGCCCCACCA GCGAGAACAA TTGTTCTTTT CTCCCTCCCT GTTATCTCAT
179041 TGTGCATTAT AGGAAAGACC AAGAATGTAA CCACACCTGA ACAGACCCTT TTATAAGATA
179101 ATCAGTCTCT AAGCATCATT TAAATTCCAA GGAGAACTAT TTACAAATTT ATCTGTTCTT
179161 TGATCCAATT AGTCTCTCCT GGTAGTTACA TATTGCCCCT CAACAGAATT CCTCTTCTTC
179221 TGTTTCCCAT AACCTATTTT GCAAGGATCA AGCCCCTGTT ACTTCTTCAA CTTCAAGTTG
179281 GCATATAAGC TTCTAAATTC CACTGGGATA TTGGTACTAT GTGCATGAGG AGAACCACAG
179341 AGTAATTAAA TTGTAAAGCC TTTTATCTTA TGAATCTGCC TTTTTTTGTG TTCATTTTTC
179401 AGCAAAACTT CCAAGGGCAA AGGTATAAAA CAAAAATAAA ATTCTAAAGC CCCCCAACCA
179461 TCTGAATAGA CTTTCTCTTC AGTCAGGCTT CTTAAAATGT AACCTGAAAG ACTGGCTCAG
179521 GCCATTAAGG GAAGTGGGGG TTGAACATGC CTCATTATTC CTCTCTGGCA TTAACATCAA
179581 CACAGCTTTT AAGTCTGATA AGAAACATTT TACAACCTAT TCTCTCTGAA GCCTGCTAGC
179641 TAAAAACTTC ATCCCATAGT ACAACTTTGG TCTTCACAAC CTGTTATCAC AACCTAGTGC
179701 TCCTTTCTAT TAATCCCAAA TCTTTATACA AACTCAACCA ATTGTCATCA CCTCCACCCC
179761 ACTCCTCCGC TGCTTCCAGT TGTCCCGCCT CTCTGGACCA AACCAGTGTA CATTTCTTAA
179821 ACGTATTTGA TTGATGTCCC ATGCCTCCCT AAAATGTATA AAGCCAAGGT GCATCCCAAC
179881 CACCTTGAGC GCTTGTTCTC AGGACCTCCT GAGGGCTGTG TCATGGGCCA TGGTCACTCA
179941 AATTTGGCTC AGAATAAATC TCTTCAAATG TTTTACAGAG TTTGGCTCTT GTCATGACAC
180001 AGATGACTGC TTCACTGAAG CCTGCTCTGG AAGTGAGTGG GGGTTTTGCA AGGATAATTT
180061 TCCCCGGATA GCCCCAGAAG CAGCTAGTAA TAATACACTT AAAGGTAGCT AAAATGCATT
180121 GAACACTTGT TTTGTGCCAG ACCTATGTCA ACATTTGCTT TGTGCCAGGC TTATGCCAGT
180181 ACTCCTGATT TGTTAATACA TTCTAAATAA AAATTCTGGA GTTTCAAATA TAATAACTGA
180241 AAAACAGAAA ATAAATAAAA ATATATAATA ACTGAAATAA AAATTTACTA AGGCTGGGGA
180301 TGGTGGCTCA CTCACACCTG TAATCCTGTT ACCGGAAAGG GGTCCGTCCA GATCCAGACC
180361 CCAAGAGAGG GTTCTTGGAT CTCACACAAG AAAGAATTCG GGCGAGTCTG TAAAGTGAAA
180421 GCAAGTTTAT TAAGAAAGTA GAGGAATAAA AGAACGGCTA CTCCATAGGC AGAGCAGCTC
180481 TGAGGGCTGC TGGTCGCCCA TTTTTATGGT TATTTCTTGA TTATGTGCTA AACAAGGGGT
180541 GGATAATTCA TGCCTCCATT TTTTAGACCA TATAAAGTAA CTTCCTGACG TTGCCATGGC
180601 ATTCGTAAAC TGTCGTGGCG CTGGTATGAG CATAGCAGTG AGGACGACCA GAGGTCACTC
180661 TCATCGCCAT CTTGGATTTG GTGGGGAGCA GTGAGGATGA CCAGAGGTCA CTCTCATCGC
180721 CATCTTGGAT TTGGTGGGGT TTAGCCAGCT TCTTTACTTT TTTCCTTTTT TTTTTTTTTT
180781 TTTTTTTTTT GCCCAGGCTG GAGTGCAGTG GCACGATCTC AGCTCACTGA AACCTCCAAT
180841 TTCTGAGTTC AAGCGATTCT CGTGCCTCAG CCTCCCAAGT AGCTGGGATT ACAGGCATGT
180901 GCCACCACAC CCAGCTAATT TTTTATATTT TTAATAGAGA CCGGGTTTCG CCATGTTGCC
180961 TACGCTGATC TCCAACTCCT GCGCTCAAGC CATCCAGCCA CCTTAGCCTC CCAAAGTGCT
181021 GGGCTTATAG GTGTGAGCCA CCCCACCTGG CCTAGCCGGC TTCTTTACTG CAACCTGTTT
181081 TATCAGCAAG GTCTTTATGA CCTGTATTTT GTGCCCACTG CCTGCCTCAT CCTGTGGCTT
181141 ACAATGCCTA ACTTACAGGG AATGCAGCCC AGCAGGACTC AGCCTTATTT CACCCAGCTC
181201 CTATTCAAGA TGGAGTCTTT CTTGTTCAAA TACCTCTGAC AAGCCCAACA CTTTGGGAGG
181261 ATGACACAGG AGGATTGCTT TAGCCTAGGA GCTCAAGACC AGCCTGGGCA ACACAGTGAG
181321 ACCCCATCTC TAAAAAAAAA AAATACAAAA AAATTAGCCA GGCATGATGG TGTGTGCCTG
181381 TAGTCCCTGC TACTCAGGAG GCTGAAGTGG GAAGATGGCT TCAGCCCAGG AATTCAAGGC

Figure 9 (Page 56 of 74)

```
181441  TGCATTGTCA GAGGCATTTG AACCAGAATG ACTCTATCTT GAATAGGGGC TGGATAAAAT
181501  AAGGCTGAGA CCTGCTAGGC TGCATTTCCA GTATGTTAGG CATTCTTAGT CACAGGATGA
181561  GATAGGAAGT CAGCACAAGG TACACATCAC AAAGACCTTG CTGATAAAAT AGGTTGTGGT
181621  AAAGAAGTTG GCCAAAACCC ATCAAAACCA ACATGGCCAC CAAAGGGACC TCTGGTTGTC
181681  TTCACTGCTC ATTATATGTT AATTATAATG TATTAACATG CTAAAAGACA CTCCTACCAG
181741  CATCATGACA GCTTACAAAT ACTGCGGCAA TATCTGGACT TTACCTTATA TGGTCTAAAA
181801  GGTGGAGGAA CCCTCAATTT TGGGAATTGT CCACCCCTTT TTTGGAATGC TCATGAATAA
181861  TCCACCCCTT GTTTAGCACA TAATCCAGAA ATAACTATAA GTATGCTTAT TTGAGCAGAC
181921  CACGCTGCTG TTCTGCCTAC AGAGTAGCCA TTCTTTTATT TCCTTACTTT CTTAATAAAC
181981  CTGCTTTCAC TTTACTGTAT GGACTTGCCC TAAATTCTTT CTTGTGTGAG ATCCAAGAAC
182041  CCTCTCTTGG GGTCTGGATC AAGACCCCTT TCTGGTAACA TCTTTCTGGT GACCACGAAG
182101  GGACAATACT GAGGAGACTC TGAAGCCAAA GGAAACAGAC TACAGCACCA ACTGGCTGAC
182161  TTTGGGTAAG TGGTGGAGTC CCCGGGTAAA GGATAGGATT GGGTTAGAGG TGCAACTTAG
182221  GGGAGATAGG GTCTCTCCTA AGACAGAGAG CGTTTCAGTC CGCTCTTAAT AAAGGGCAAG
182281  AATGCTTGAC CGAACTTGGG TTTGAGACCC AACTTAGGAA GGCTACAGTC CTTAAGATTT
182341  AAGGGGTTAG AGGCCCCTCT CAGTAAAGTC TCTCTTGGTT AAAAACGGAT TTAGCATTAG
182401  GGGATGTTAA CTGCTATTCT GTTTGTATTA ATCTTCCCTG TGCTCTTTGC TGACAGCTAT
182461  GGGTGACAGG ATTAGGCATG TACAGGATCA CGGGACATTG GGAACTTTTC TTCTCTCCAA
182521  AAGGGGAAGC TTGACAGCTG ATAGGACTGT TGGAAAAGAT CCCTTTGCTA TGACAAGCAG
182581  CCGCCTGAAC TTTTGATTCA GTGTTGCTGC AATGGGTGGG TCTTTCTCTG GCCTCTGTGA
182641  ACTCCTCACC TTCCCCACCT CACCACAGGC AATGCTTTTC TCCCTTTCTC TCTTTTCTCT
182701  TTTCTGTCTT TTCTGTTACT TGAGACAACC ATCTTGCCCA GAGACCATAT GTTGAAACTC
182761  CTGGTCAGAA GTTTGATTAA AGATGAAAGG GCCTATCTGG GGGCAAGTTT GAGCCTTCCC
182821  AGTTAGATAT TGGGTGCTAA GTGGAGTGGC CAATGTCTAT GTTTTGTCAC ATGTATATTG
182881  CTCTGGCTGA AATGGAAAAC GTTAATTTGG TTACTTTATG TGGCCATTGG GCAGCATCTT
182941  ACAAAAGTGA GAGACATTTA TTTGCCTGTG GTTCCATGAA ACAGAAAAAA GTTGGTTTTC
183001  CTTTGTGTCG TAGCTTGGAC CCAAGGGCTT TGCAGTGAGC AAGGTTGCTA GCGCTGCTCA
183061  GTGAAAGAGA ACCCAGAAAC CTGGCATGCC AGCAAAAGGG TAAAGATTTC TTACCAGTCA
183121  GGCTTCTGGC CTCTCTCTCT TAGTGAAAAC TGAATGAATG GTAAAAATCA CTGTTTATCA
183181  CCTCTGTAAA GTTTTGATTA ATGGGAACAA GGATTTGTGG GGCTAGTCTT AAGCTGTAAT
183241  GAATCTGGTA TACTTTGTGA TATCAATTTG TCTTTCTGTA TTACTCTGTC ATAAAGAGGA
183301  ATATGGTAGG ATAGAACATG GGCTTAGGAC TCCATAAGCC TGCTGTTCAA GCCAGCCCAG
183361  TAAACTGGTC CGTTGCAAAG TTTATTACAG GTCCCTGGAA AAAAAAAAAA TTAAAAACTG
183421  GATGAAGTTT CCTTCTCATC TTGTTTTATG TCCTTTGGAG CTTCACCTTG TAACCACGTG
183481  GCGGTACTTT CTCTTGGTCT CTGCCATCCA GGGAACAGGA ATTTTGGGGT TTATGTAATA
183541  GTTAACTCTA AAAATTATCT CAAGCCATTG CAAGCTCAAA ATTGGCTGCT CTGGACCCCT
183601  TCTGGGAAGG GCAATGGAAA CTAACCAGTG TTGTAGCTCA GCAGCTAAGG ATTTGTCATT
183661  TTATAATGGC GGCCAAGGTT CAATCCTGGC TTAGGGAATG AGTACTTTCT GATTGATATC
183721  TGTGTGACCT TTACCATTTG TTGATTCTGT TCTCTTCCCC TCCACACACT GTCTTGAGTT
183781  TTCCTCTCTC TGAGAACCTG GGAGATTATC TTTGGTAAAG TTCAAAAGCC AGAAATAATG
183841  GCCGTGTGGG ATGGCTAAAG TTGAGTAATA AGAAACTTAA AAGGACTCCT TTTTTTTTTG
183901  CTTTAGAGTG CTATGGTTTA TGGTTAAAAG CTTAATTAAA AGTGGATATT CAATCTCTAA
183961  AAGCCTGGGA CTCCTTGGGA AAAGCAGAGG AGGCACCACA GACCCCATTT TGGGAAAACC
184021  TCTGTTTTCC TCATGAAACC CCAGGAACTG GAAGTGGATA GATCCTTCGC AAAATCTAAG
184081  GCTCTGTTTG GCTTTGCATT ATGTTATCTG ATGTTTTTGA CTTTTGGGGG TATCAGAAAT
184141  TACTTTGCAT TATGAGGGAG ATCTGGTGTG TAATAACCAG GTAGGAAATA TACTTCTGGG
184201  GATAGCTAAA GGCAAATATA GGTGAATACT TGGCTATTTG CACTTTTGGA TCACAAGAAG
184261  CATTCTCTTG ACTACCTAGA AGGTATGGAA ATGTCTCCAT CCCCACCGAG AGATAAGATT
184321  CCCAGGGGAG ATGGCTGATC CCCCAAAAGA GGGCTGATTC CCTCTTTTGG GATCCAGGAT
184381  CTGGTATAAA AATGGGACCC TGGCCAGGCA CAGTGGCTCA CGCCTGTAAT CTCAACACTT
184441  TGGGAAGCCT CAGAGTTATG AATGTCTCAC CATACTGACA CTTTGTGACT GAGCTCCTCT
184501  CTACCCTGGA CACAAGAGAC CCTAATAATT AGACAGGAAT ATCATTGCCC CTATTTAGTC
184561  TGAAGAAGTT ATAGAAGATG GATCTTTATC CCACTGCAAT CCTTAGGATT AAGGGTTCCC
184621  TGGTAAAAGG GAGTGGGAAA ATATGTCAGA GGCATTTGAA TCAGAGTGAC TCCATCTTGA
```

Figure 9 (Page 57 of 74)

```
184681  ATAGGGGCTG GGTAAAATAA GGCTGAGGCC TGCTGGGTTA GGTTAGGCAT TCTAACCAGG
184741  AGTTTAGTCA CAGGATGAGA TAGAAGGTTG CACAAGGTAC CCGTCACAAA GACCTTGCTG
184801  ATAAAATAGG TAACGGTAAA GAAGCCAGCT AAAGCCCACC AAAACCAACA TGGCCACAAA
184861  AGTGACCTCT TGTCATCCTC ACTGCTCATA TACACTAATT ATACTGCATT AGCATGCTAC
184921  AAGACACTCC CACCAGTGCC ACGACAGTTT ACAAATACCA TGACAACATC TGGACGTTAC
184981  CTTATATGGT CTAAAACGGG GAAGAACCCT TAGTTCTGGG AATTGTCCAC CTCTTTCCTG
185041  AAAAATTCTT GAATAATCCA TTAGTTTAGC ACATAATCCA GAAATAACTA TACGTCTGCT
185101  TATTTGAGCA GTCCATACTG CTGCTCTGCC TATGGAGTAG CCATTCTTTT CTTTTATTTT
185161  TATTTTTTAG ATAAAGACTC GCTCTGTCAC TCAGGCTGGA GTCTGGAGTG CAGTGACGTG
185221  TTTTGGCTCA CTGCAACCTT CACCTCCCGG GTTCAAGCAA TTCTCCTGCC TCAGCCTCCC
185281  AACTAGCTGG GACCACAGGT GGGTGCCACC ATGCCTGGCT AATTTTTGTA TTATTAGTAG
185341  AGATGGGGTT TCGCCATGTT GGCCAGGCTG GTCTCGAACT CCTGGCCTCA AGCGATCCAC
185401  TTGCCTTGGC CTCCCAAAGT GCTAAGATTA CAGGCATTAC CCACTATGCA TGACCCATTC
185461  TTTTATTTCT TAACTTTTTT TTGTTTTTTT GAGACAGAGT CTCACTCTGT CACCCAGGCT
185521  AGAGGCTGGA GTGCAGTGGT GCGATCTTGG TTCACTGCAA CCTCTGCCTC CTGGGTTCAA
185581  GCGATTCTTC TGCCTCAGTC TCCTGAGGAG CTGGGACTAC AGACATGTGC CACTACACCC
185641  AGCTAATTTT GTATTTTTAG TAGAGACAGT GTCTTGCCAT GTTTGTCAGG CTTGTCTCGA
185701  ACTCCTAACC TCAAGTGGTC TGCCTGCCTC AGCCTCCCAA AGTGCTGTGA TTACAGGCAT
185761  AAATCACTGC GCTCGGCCCT TCTTTACTTT CTTAATAAAC TTGTTTTCAC TTTACTGTAT
185821  GGACTAGCCC CAAATTCCTT CTTGTGTGAG TTCCAATAAC CCTTTTGTGT GTGAAAGAAT
185881  TTATGGCTGC TGTTCAGGCT GGAGCAAGCT GGAGCTCATG CTGCTGCTCA GACTGGAGCA
185941  TGCGTGATCT GTGATCCCAG TAAGAGGATC ATGGTCACTC CAGCCTGAAC GACAGCATGA
186001  TATCTCATCT GTAAGAAAAA AAAAATTACT AGAGGGCTTT AACAGCAAAT TTGAGCAGCA
186061  AAAAGAAGTA ATCAGTGAAC TCAAAGATAG GTCAATTGAA ATGATCTACT CTGAAAAACA
186121  GAAAGAAGAC AGAATGAAGA AAAAGAAATA GAGCCTTAGA GACAGGGGAT ACCATCAAGC
186181  ATACTAATAT ATGCATAATG GGACTCCTAG AAGGAGAAAA GTGAGAGGAC AGGGAGAGAG
186241  AATGTTTGGA GAAATAATTT CTCAAAGCTT CCCATGTTTG GCAAAAAAAC ATTAACTTGC
186301  ATACATATTT TAGGAGCTCA ATGAATTCCA AGTAGGATAC ACTCAAAGAG ATCCATACCT
186361  AGACACATCA TAATCAGATT ATCAAAAGAT GAAGAAGATG AATCTTGAGA GCAGAAAGAA
186421  AGGAACAATT CATCACATAC AAATAGTACT CAAAAGATGT CTGGAGTAGG TATACTAATA
186481  TCAGACAAAA TAAACTTTAA GATAAGCATT GTTATAATAA ATAAAGAAAG GTATTTTGTA
186541  ATGATAAAAG TGTCAATTCA TCAAGAAAAC ATAACATTAT AAACATACAT GCACCTAACA
186601  ACAGAGCCCT AATATTCATG AAACAAAACT GACAGAATTG AAGGGAGAAA TAGAAAATTC
186661  GACAATAATA GTTGGAGACA TCAATACCTC ACTAGTTAGA CAAGATCAAC AAAAAAATAG
186721  AAGACTTAAC ACTTGAAAAC ACCTAACCTG ACCCTAACAT AAATCTATAG GTCACTACAC
186781  CCCAAAACAG CAGAATAAAC ATCCTTCTGA AGCTCACATG AAACATTTTT CAGGATAGAC
186841  TGTATATTAC TTCATGAAAT AAGTCTCAAT AAATGTAAAA GGACTATAAT AATAGAGTAT
186901  ATATTCTCTG ACCAAAGTGG AATGAAGATA GAAATCAATA ACTAGGCTGG GCGTGATGGC
186961  TCACGCCTGT AATCCCAGCA CTTTGGGAGG CCAAGGCGGA CAGATCACGA GGTCAGGAGT
187021  TTGAGACCAG CCTGACCAAC ATGGTGAAAC CCTGTCTCTA CTAACAAAAT ACAAAAATTA
187081  GCCAGGCCTG GTGGCATCTG CCTGTAGTCC CAGCTACTCG GGACACTGAG GCAGGAGAAT
187141  CACTTGAACC CAGGAGGCAG AGATTGCAGT GAGCTGAGAT CGCGCCACTG CATTCCAGCC
187201  TGGGAGACAG AGCGAGACTC CATCTCAAAA TTAAAAAAAA AAAAGAAACT AGAAAAATAA
187261  GAACAAATCA AACCCAAAGC AAGCAAGAGG AAAATGAAAA ATTTCAAAGC AGCCAAGAAC
187321  AAAAGGCACA TTATGTACAG AAGAACAAGT GTATAGATCA CATATTTCTC ATAGACACAA
187381  TATAAGCAAA AAGACAGTGG AGCAAAATTT TTTAGATTAA TGAAAGACCT ACAATTCTGT
187441  ACCAAGCAAA AAAACTCCCC CCAAATGAGG GTGAAATAAG ACAATTTAAT ACAGAGAAAA
187501  GAGGAAGGAA TTTATCTAGT CATATGTGAG AGTTTTATGA TACATTTTGT ACTGTATATG
187561  TGGATGTTTT CTATTTCATT TAAAAAATCA ACCGTGCAAT TAAATGGTAG ATTGTCTTGC
187621  TTCTTTTTGA TTGACACAGT CATTAACTAA AATATTGTAG TATTTTTTTA TCTCCCTGCC
187681  TAAAGGCAAT AAACATCTAA TCAGCAGACT AGAACAATAA AAAATATTTT TTAAAAGTCC
187741  TTTAGGCAGA ATGATAAAAG TCCCTTAGGC ATATTGAAAT TCCTATTTAT ACAAAGGAAT
187801  AAACAGTACT AGAAATTGTA ACTATGTGAG TAAACAGATA ATATTTTTTC TCCATAAAAT
187861  GTGGTTGACT ATTTTCACAA AAATAGTTAA CAATGTAATG TGTGATTTAT AGCATTTAAA
```

Figure 9 (Page 58 of 74)

```
187921  AGTAAAACAG GCCGGGCACA AAGGTTCGTG CCTGTAATCC CAGCACTTTT GGAGGCCGAG
187981  GCGTGCAGAT CACTTGAGGA CAGGAGTTCA AGACCAGCCT GGCTAACATG GCAAAACCCC
188041  ATCTCTACTA AAAATACAAA AATTAACCAG GCGTGGTGGT GCACGCCTGT AATCCCAGCT
188101  ACTCTGGAGG CTGAGGCACA AGAATCACTT GAATCCAGGA GGTGGAGGTT GCAGTGAGGC
188161  AAAATTATAC CACTGTGCTC CAGCCTAGGC AACAGAGCTA GACTCTGTCA CACACACACA
188221  CACACACAAA AGAAAAGTGT ATGACAACAA CAGTGCAAAA GAAGCGGAAA TGAAAATAAT
188281  GTTATTTTAT ATAAGTGGTA TACTTTTAGA TGAACTACGA TAAATTAATG ATGTATACTA
188341  TAAACTCTAA GGCAACCACT GAAATAATGA AACGAAGAAT TATGGCTAAC AAGCCACAAA
188401  AAGAAATAAA ATAGAATGAG AAAAAATATT TAAGTTGTTC AACAGATGGG AAAAAAAAGA
188461  GGAAAAAGAG AACAAAGAAC AGATGGGACA AATGGGAAAG TAATAGCAAG ATGATAGACT
188521  TAACTCTACC CATATAGATT ATCACACTTA AGGTAAATGA TCTAAATACT CTAATACAAA
188581  AGCAGAGGTT GTCAGATTGA ATTAAAAAAA CAGACAACAA CAAAAAAAAG CAAAAAAAGA
188641  GCCACAACAT GCTGCCTACA AAAAATTCAC TTTAATATAA AGACACAAAT AGTCTAGAAC
188701  ACCATCACTT TTAACCTTAT TTACTCAAAC CTCCTAACTG ATCCCTATTT ATTTATTTAT
188761  TTATTTATTT ATTTATTTAT TTATTTTTGA GACAGAGTCT GACTCTGTTG CCCAGGCTGG
188821  AGTGCAGTGG CACCATCTAG GCTCACTGCA GCCTCTACCT CTCGGGTTCA AGCGATTCTC
188881  CTGCCTCAGG CCTCCCAAGT AGCTGGGACT ATAGCACATG CCACCATGCC CAGCTAATTA
188941  TTATATTTTT AGTAGAGACG GGGTTTTGCC ATGTAGGCCA GGTTGGTCTC AAACGCCTGA
189001  CCTCAGCCTC CCAAAGTGCT GGGATTACAG GCGTGAGCCA CAGCACCCAG CTCCTCTTCA
189061  TTTATTCTTG CTACGCTTCC TCCAATCCAT TTTGTGCATT TGATGATTTT GCCAGTAACT
189121  TCTTTATTTT TCTGGTAAAA TTACTTATGG GTCACTGAGG ACTGGGATGT TCTTTCTTCT
189181  AGAGGGGGTT TGTGTCTGCT TTTGCCAGGA AGCTGGGGTA CCACCAGTCA AGTATTACTT
189241  TAAACTCAAT TCATGAATTG AGACTTTTTT TTTTTTTTTT TTTTTTACGC AGAGTCCTAC
189301  TCTGTCACCC AGGCTGGAGT GCAGCGGTGT GAACATGGCT CACTGCAGCC TCAACCTACT
189361  GAGCTCAAGC AATCCTTCTG CCTCACCATT CTGTATAGCT AGGACTACAG GTGTGTGCCA
189421  CCATGCCTGA CTAATTTTTT AAATGTTTTT TTTAGAGATG GGGCTCACTT TGTTGCCCAG
189481  GCCGGTCTCG AGCTCCTGGG CTCAAGTGAT CCTCCCACCT TGGTCTCCCA AAGTGCTGGG
189541  GTTACAGGCA TGAGCCTCTG TGGCTAGCCA AGACTTTTTA TTTTTTAGCC TAAATGTGTA
189601  TAAAAGTTGG CTTGTGGTTA CAACTTATCA GGATTGATGA TCTCTCTCTC TCTCTCTCTC
189661  TCTGTCTCTC CCCACCTCTC TCACATCCCT TGCTCTGCTG AGAAGCAGAG CAAACATTCT
189721  AGCAGTTTCC AGAGAGTAGG ATGGGATTAC TTCTAGTTTA CTTTTATCAT CCTTTGGGAT
189781  CGCAGTATTA CTGGGAGAAC ACAAGTATCT CTTATTAGAC ATACCACCTT TGTAGAATCT
189841  GGACTTTCAT TTTAGACTTT ATTTGTTTTC TACTATAAGC AATTTAAGTT ACAGATCTCT
189901  CTACACACTG TTTAAGTTGC ATCCCATGAA TTTTGATGTG CTTTATTGTC ATTATTATAT
189961  AGTACAATGT ATTTTGTAAT TTTTTGTGAT TTGTTTGGAG AGATTGATTA ATTAGAATGA
190021  TGTTTAATTT CCAAATATGT GTGTTTTTTT CCTACATTTC TTATTTTTAT TGATTTCAAA
190081  TTTATTTCTA CTGTAGTCAG ATTTAATAAT TCATTTATTT TTATTATTTT CATTTTTTTA
190141  GAGACAGGGC CTTTCTGTGT TGCCCAGGTT TGTCCCAAAC TCCTAGTCCC AAGCAGTTCT
190201  CCTGCCTCAG CCACCCAAAG TGCTGGGATT ATAGGCACGA GCCACCCGTG CACAACCAAC
190261  AATTCATTTA AAAAGTGGGC AAGTGAACTG AACAGACATT TCTCAAAAGA AGGCATACAA
190321  TTGGCCAACA AATATATGAA AGAATGCTCA ACATCACTGT ATTAGTCTGT TTTCATGCTG
190381  CTAATAAAGA CTTAACCTGA GACTGGGGAA TTTACAAGAG AAAGAGGTTT AATGGACTTA
190441  CAGTTCCACA TGGCTGGAGA GATCTCACAA TCATGGTGGA AGGCAAGGAG GAGCAAGTCA
190501  CATCTTACAT GGATGGCAGC AGGCAAAGAG AGAGCTTGTG CAGGGAAACT CCCGTTTTTA
190561  AAACCATCAG ATCTCGTGAG ACTCATTCAC TATCATAAGA ACAGCATAGG AAAGACCCGG
190621  CCCATAATTC AGTCACCTCC CACTGGGTTC CTCCCAGGAC ACATGGGAAT TGTGGGAGTT
190681  ACAATTCAAG ATGAGATTTG GGTAGGGACA CAGCCAAACC ATATAAATAA CTAATCATCA
190741  GGGAAATGCA AATCAAAACC ACAATAAGGT ATCATCTCAC CCCAGTTAGA ATGGCTATTG
190801  TCAAAAAAAC AAAAAATAAC AAATGCTGGT GAGGATGTAC AGAAGAGGGG ACTCTTATAT
190861  CCTACTGGTG GAAATGTCAA TTAGCATAGC CATTATGCAA AATAGTATGG AAGTGAGGTA
190921  GGTTACATAG GGTGGTCACA GCCTCCCTTG AAAGGAAACA AGAAACTTGT CAAATTGATG
190981  GAGAGAACAA ATCTCTTGAC ATTACACAAA CTGCATCTGG GGCTAGTGGT TAGAATATCC
191041  TCAGTCAAGG AGGTAGAAGA GCAGGAGGGA AAATCCCTAA GTTCGTGCAA GTGCAGAAAC
191101  CCACAAGCTG TGTTCTCAGG TTGACATATA CTCATTTTAA TAGTAAGAAA CACACCCTTG
```

Figure 9 (Page 59 of 74)

```
191161  GGTAGAGAAT TAAAATGCTA ATAATACATG TGATGTATGT ACTAGCGTGT ATGGCAATAT
191221  TGCATGCACA TTCAAGAGAC CACCCAAAAC ATATTTAACA ACAATGCCCA TTCCCACCCC
191281  CTCATGGATA ATCACGTAGG ACTCCCATAA CGGGAGTTTC TTCAGTGTCA ATTGGTGCTG
191341  AAGTAGCCGA CCCTGACTCT GCTATCAGCG TGTACTTTCA CCTTGCAATA AACTCCTTTG
191401  CCTACTTTTA CTTTGGACTG GCTTTCAAAT TCTTTTGTGC AGGGAATTCA AGAATCTGAA
191461  CCAGCCCACT GACAACAGAG GTTTCTCAGA AACCTAAAAA TAGATCTACC AGATGAGGCT
191521  GAAAATCTGC TACTGGCTAT TTATCCAAAG GGAAGGAAAT CAGTATACAA AGAGACACCT
191581  ACATCCCCAT GTTTATTGCG TCACTCTTCA CAAGAGCTGA TATATAGAGT CAACCCTAAA
191641  TGTTCATTAA CAGACAAATG GATAGAAAAT GTGGCATATA TACACAATGA AATACTATTT
191701  GGCCATGAGA AGAATGCAAT CTTGTCATTT GTGGCAACGT AGATGAAACT GGAGAACATT
191761  ATGTTAAGTA AGATAAGCTA GGATTGGAAA GATAAATACT ACATGTTATC ACTCATATGT
191821  GAAAGTAGAG AAAAATTTTT AGCTCATGGA TTTAGAGAAC AGAACTGTGG GTACCGGAAG
191881  CTGGGAAGGG TAGCAAGGAG GGGAGGATAG GGAGAGGTTG GTTAATGGTG ACAAAATTAC
191941  AGCTAGATTG TAGAAATGAG TTCCGGTGTT CTGCACCATT GTAGGGTGCA TATGGTTAAC
192001  TCTCATTTAT TGTATATTTT CAAAAAGCTA GAAAAGAATT TTGAATACTC ACAACAAAAT
192061  AAATGATAAA TGTTTAAGGT GATGGATATA CTAATTACTC TGATTTGATT ATTACACATT
192121  GTGTACACAT ATAAAAATAT CACTCTTTAT CCCGTATATA TGTACAGTTA TTATATGTCA
192181  ACTAAAAATA AAAGAAAAAA AGAATATGAT CTATCATGAT GTATATATCA TGTGTACTTG
192241  AGCAAAATGT GCATGCAGAT ATTGTGTATA ATGTTCTATA AATCAATTAG CTCAAGATAA
192301  TAGATAGGAT TGTTCAGATC TTCTGTGTCT TTACTGATAT TTTGTCTAGT TATTGCATCA
192361  TTACCAAAAA AAGGGTGTTA AACTCTCCAA ATGTGATTGT AGAATTGTCT ATTTTGTCTT
192421  TTCTTTTCCA TTTTTACTTT ATGTATTTTG AAACTCTGTT ATGACATTTT GCTATGTATT
192481  TTAAAACTTC GTTATGTATT TTGAAACTCT GTTGTTAGAA TCATACATTT ATGATTATTA
192541  TGTTTTCTTG ATGAAATGAC CCTTTTCTAT TGTCGTTGTT TTTGTTTTTT CTGAAATGGA
192601  GTCTCACTCT GTTGCCCAGG CTGGAGTACA GTGGCACAAT CTTGGTTCAC TGCAACCTCC
192661  ACCTCCTGGG TTCAAGCGAG TCTCCTGACT CAGCCTCCAA GTAGCTGGGA TTACAGGCAT
192721  GTGCCAGCAT GCCAAACTAA TTTTGTATTT TTATTAGAGA CAGAGTTTCA CCACGTTGGC
192781  CAGGCTGGTC TCGAACCTCT GACCTCAGGT GATCCGCCCA CCTCGGCATT TTTATTTTAT
192841  TTTATTTTTT TGAGACAGAG TCTCACTCTG TCACCCAGGG TAGAATGCGG TGGTGTGATC
192901  TTGGCTCACT GCAACCTCCG CCTCCTGGGT TCAAGCAATT CCCATGCCTC AGCCTCCCGA
192961  GTAGCTGGGA TTACAGGCAC ATGCCACCAT GACTGGCTAA TTTTTGTATT TTTAGTAGAG
193021  ATGGGGTTTT TCTATGTTGG CCAGGCTGGC AACTGACTCC TTTAACAATA CAAAATATCA
193081  CTCTGTCTCT GGTAACACTC TCTGTCTTAA ACTCTATTTT AGCTGTTATT ATTATAGCCA
193141  TTTTAGTCTT TTTATGCTTT CTGTTTGCAT AGTGTATATA TTTTAATATG TTTATTCTCA
193201  AGTTATCTGT GTTTTTATAT TTAAGATGTT TCTCTTCTAG CCAACGTGTT TGGTTCTTGC
193261  ATTTTTAAGT CGATTCTAAC AATCTTTGCC TTTCAATTGA AATATTTACA CCATTAACAT
193321  CTAACATTAA CATTTATTTT TCTTTCCACA GTACACTGGC TAGCATCTCC CATATAATAT
193381  TGAACATAAA GTGTGATAAC TGACATCCTT ATTTCATTCC TACTCTGAGT GGAAAGGGCA
193441  GGGGTGGAGA AAGCATTCAA CAATTTGCCA TAATTATAAT TCTTTTTGTT ACACTGTTTT
193501  CTTCTGCATT AAAAAATATC ATTACATTTT GCATGAATTA TTAGGAGAAA ATATTTTCCA
193561  ATTTTCCTGG AAAATGCCAT AACCACGTCT CTCAATTTTG TTTCCATCTT TCTTCCACAT
193621  TTTACATAAC CTACATAAGA GACACATTAT CAAGTATATT TTACATGGCT TCTCAGTGTC
193681  TTCTCTGTCT GCTAACAGGT TTACCAAGAG ATGGCACTCT TGTATTTCTG GTGGCTATGT
193741  CCATATCGTT TTGCCTTTAA GACAGCGTAA CTACTTCTTT CACCAGTATT AAAGACATGT
193801  ACATTTGATC TGGTTCTTGT GGATGATTTT AAATGACTCA AGCTAATAAT CCTAATTTTA
193861  CCTAAACACT CCATTATTTT AAAATGTATT CCTTTATGCC CACAATAAAC ATTTATTGAC
193921  ATTAGGCTGG ACATTAGGCT TCTCTATGGC AGACATTAGG CTGGACCCTA GCCATATATC
193981  TATTGAGGGA AAAAAAATTA TTTTCTATAT AAGTTTCCAG AAAGCCAAGA TGTGTTTTAA
194041  AAACAAAACA AAACATTACA TTCTAAATGC TGTAACAAGA TAAGAAAAAG TGTTGAGGCT
194101  GAGAGAAGAA CAAAGCAGCA AGCAACTCCT GGAAGGACCA CTGCTGCAGA GGTAATAACT
194161  GGTGAACCAT GTTTTGGAGA AGGAAAAGGT CACCAAGAGA AGGAGGGGGT CCAGGGTGTT
194221  CAGAAAGATT GCATGCATAA AGATCAAGGG TAATAAAAAA AATTCCGTAT TATGTAAATG
194281  TGAAGTTCCA GGACCATGAG CTTGGAGAGC ATGAAGTACA GGAGGAGGGT TGGTTTCAAA
194341  TAAATCTGGG AATGAAACAG TGAAGCCTCT GGCAGAACTC ACATCTCTTT CCTCCCCTCT
```

Figure 9 (Page 60 of 74)

```
194401  TCCTTGCACA TTCCCTTTAT GGAGTAATTG CAGGGATGGG AAAAGTTCAA AACCACCACT
194461  GAGCCTAGGA AGTGCTAGGG TAAAGTGGAG AATGAACCTG CGTGATTTGC TCATCCTAAA
194521  CTAGGTTCTT CTAGGAGAGC CCTTCCCCAT AAAATCTGCC CTCCTCGAAG GGGCCCAGAC
194581  AGCCTAAGCT CACCTCCCAA AGACCCCTTA CTTGCTGACT GAATCTGATT CCACCCAGAC
194641  ATGGCCTAAA ACCCTTCCAT AACTCTATAG CCAAATTCAA TTTTAGACAG GCCTCATACC
194701  AACCTTTCTT CCTCTAAGTC TGCCACCCTA GGCAATTCTC AACATTCTCT ACACACTTTG
194761  GGGCCATAGA CGTGCTACCA AGTCTCCAGA CCTAGACCTG ATGGAGCAGT GCTGTAATGA
194821  GACGACCACT GGCCTTTGAA CCAGACCCTT CTCTGTGGCT CCTATGCATC TCCAACCTGT
194881  TTTGAGCACT GCTGCCAAGA CATCTTTGGC ACTTTGTTGT GAAGTTTTAA AACTGAACTA
194941  ATCTACAAAA CACCTAACCT TTAAAAATTC ATTGTCATTT CATATCATGA AAGATAAAGA
195001  AAGGCCAGGA AACTGTTCCA GGTTAATAGA GACTAAAGAG ATAGCAACCA AATGCAATTT
195061  GTGATCCTGG ATTGAGGGGA AAAAGTGTTG TCAGAGACAT GATTGGGACA GCTGGTAAAA
195121  TTTGAATTTG AATTTAAAGA TAAAGTATTG AGTAATATAG GAAGATGATT ATCTGCAACT
195181  TTCAAATGTT TCAGTAAGTA TATATATATA TAAAGAGATA TAAAGACATA TAAATAAATA
195241  GATGGATAGG TAGAGAAAAA GCAAATGTAT AATATTAACA ATCTAGGTAA AAAGTATATG
195301  AGTGTTCTTT GTACTGTTTT TCTGATTTTT CTATATGTTT GAAATCATTT TAAAATAAGA
195361  AGGTTTTTGG GGTTTTTTTG TTTGTTTTTT GTTTTTAGAG ACAGCATCTT ATTCTGTCAC
195421  CCAGGCTGTA GCTCAGTGGC CCAATCATTG CTCACTGCAG CCTCAACTTC CTGGGCTCCA
195481  GTAATTCCCC CTACCTCAGG CTCATGAGTA GCTGGTACTT CAGGTGTGCA CCACTGCACT
195541  CAGCTAATTT TTATTTTTTA AATTTTTGTA GAGATGGCAT GTTGCTATGT CACCCAGGCT
195601  AGTCTCAAAC TCCTGCCCCC AAGTGATCCT CCCACTTTGG CCTCCCAAAG TGCTAGAATT
195661  ATAGGCATGA GCCACTGCAC CCAGCCCCAA ATAAAAAAGT ATTTTATTTT AATTAACTAA
195721  TTAATTTTGA GTCAGAGTTT CACCCTTGTC ACCCAGGCTG GAGTGCAATG GCATGATGTT
195781  GGCTCACTGC AAACTCTGCC TCCTGTGTTT AAGCGATTCT CTTGCCTCAG ACTCCTGAGT
195841  AGCTGAGATT ACAGGTGCCT GCCACCATGC CCAGCTAATT TTTATATTTT TAGTAGAGAC
195901  GGGGTTTCAG CATGTTGGTC AAGCTTGTCT CAAACTCCTG ACCTCAGGTG ATCCACCCAC
195961  CTCGGCCTCC GAAAGTGTTG ATGAGCCACC ACACCCGGTC TAAAAAGTAT TTTAAAACCA
196021  CAGTCCCACT CTACCTTGTC CTACACTACC AGGGGCTAGG ATCACCCCAT GTCTTCTAGG
196081  CTATGAGATA GAGGAATCCA AGGAAGAAGA TAAGCTACTT GGTTCCTCTA TAGGGTCTTG
196141  TGTGTGCTCT CATGTGCTCT CTCTCTCTCT CTCTCTCTCA CACACACACA CACACACACA
196201  CACACACACA CACACACATG AATACCAGAG CTATCACTTT CCCAGTCTAG TACTCATCTC
196261  ATCCCAAGGG TTTTGTGTTG TAGTGGTTTG CTCATTTGTT TGTTTTGTTT GTTTGCTTGG
196321  ATTATTCTTT TTCTCTTTTT GCAGCTGAAG GGAGAATTTC CAGGCCAGCC CTTTGGCCAT
196381  TAGAGTTACA GTGCCTCTAT TCAGGCTTCA TAGAGAGACC TGGGATTCAG TAGTGGGGGG
196441  CTTTTATCCA GTTCAAAATA ATGCATTCTC ACCAAGATGT ACTTTGAAAT AAAACAATAC
196501  TAAAACACAA AATTTTATTT ATGCTGAACA TTGAATCACT TTTTTCTGTA TTTTGTGTAG
196561  AAAGTTATAC ACACACAAAC ACATTTGCTC CTGCTTTGTT TATTGGCCCA GGGGTATGTT
196621  TGGTAATACT TCATCAGGCA TGAGTAGTAC GTCTTGGAAG GTGTGGTCTA AAGCCTAGAC
196681  TCCTATCTGC TTCCTTCAGC ATTCTCCAGT GTATCTGTCA TCTGTCTACC TTAGGATGGG
196741  GTCTCCAGAA CTTCCATTCA CATTTAGAAG AGGGCAGCGG CTTTCTATGG AAAATATGAA
196801  CTCTCATTCA TCTCTATTCC TTCTTCTAGC TATGGTCCAG CTCAGCTGTT TGGAATAAAG
196861  TATCTATATG AAGTCTGCGA ATGGTTCTCA GACTGGTTGA ACATTAGAAT CACCTGAGTA
196921  CCTTCTAAAA TTCTTATTAC CCAGGGCATA TCTCAGAATG AGTACCACAG GGTAGGGATA
196981  GGATTAGGGA TCATGATCTC TGGAGTCTGG TTTAGGCACT AGTGCTGTTT AAAACTACGT
197041  TCATGAGGTG GAGGTTGCAG TGAGCCGAGA TGGCGCCACT GCACTCCAAC CTGGGCGACA
197101  GAGTGAGAGT CTGTCTCAAC AACACAAAAC AAAAAAAACC AACTACCCTT GTGATTTGAA
197161  TGTCCATCCA AAATTGAGAA CCATTAGGTA AGGCCAAGCT GTATAATTAA AGAGCAGTTT
197221  TCATTTGTCT GGTGTGGTGG CAGCTTTTTG ATAAGGGAAG TATTGTTGCC ATCCACATAC
197281  CTGAGCCTCA CTCCTGAGAA CACTGGTGTG TATGTTGCTA AAATTCCCCA GGTGATTCTG
197341  AGGTTCCTTC CTGGATAAAA ACCACTGACC CTGGGAATGT ACCCACTGCC AATCTCCTGC
197401  GTAAACCTTG GATACTGGGA AGCCTACAGT TGAAAATATT GGGCTTGAGA TCCTGAAACA
197461  AATCTTGTAT TTCATTAAGA CTAATATTTG GTACAGTGCA GCAAATCAAG GGAATTTTGG
197521  TGGCTGAGTT CTTTTAGAAC TTTTGCATTG AAATAGGTTC AAGCAGCAAT AAGTTAAAAC
197581  TACAACCTCA GCTAAAGGAT TAAAAGACAC GTGAGCTGGG TAGGATGAGG TCTAAGATTG
```

Figure 9 (Page 61 of 74)

197641 GGTGTGGCGG CTCATACCTG TAATCCCAGC ACTTTGGGAG ACTGAGGTGG GTGGATCACT
197701 TGAGGTCAGG AGTTCAAAAC CAGCCTGGCC AACATGGTGA AAACCCATCT CTACTAAGAA
197761 TACAAAAAAA TTAGCTGGGC GAGGTGCCAG GCACCTGTAA TCCCAGCTAC TGGGGAGGCT
197821 GAGGGAGGAC AATCACTTGA ACTCAGGAGG CAGAGGTTGT AGTGAGCTGA GATCGCACCA
197881 CTGCACTCCA GCCTGGGTGA CAGAGCAAGA CTCCATTTAA AAAAATAATA ATAATAATAA
197941 CAATAATAAT AATTCAGACA TATCCAGGCA TCAAACAGAT ACCTGGGGCA GATGAATAGT
198001 CTTGAGATTC AAGTCACACA TGAAATTTAG GTGGAAAATG ACATTGGAGA AATTTGAGAT
198061 TATGATGAAT GGAAATTTTT CAAAGAGGAA TTTCAGGCTC TGTTCTTGAG GGGATAGATG
198121 GACTTCCAAC AGCAATAACA CAGGATTAAT GAGGACTTGG GATGTTACAT AAATTAGAGA
198181 TGTTAGATGG ATAAAGAGAT AAAAGTACTC TCTCTAAGAA CATGGGACCA GAGATAGGCT
198241 CACTTCTAAC CATCAGATAT AACTAGCAGA CTAAACGGTC TAAAAATAAA AATCATGCCC
198301 CACTCCTGCT TAAGACATTT TAATTACTCT CAGTAACTCT TCAGTTTTTC TACTGTGTTA
198361 TCTTTAACTA CAGGGTTGGT CTGGGTGTGC AACACAAGAA AGCCTGGCAT ATACATGGAT
198421 TCAAGTGTAT GCCATGTACA GGTATTCTTT CATGTACTAT TTCATGTATT CTTTTTCACA
198481 TCTGTTTTTT CCTTCATTGA AGTCAATGGC TGATATTAGA TTCTACTATT CATGTGTACT
198541 AGTTATATAT AATTGTTACA AAACAAATTA GCAAAAACTT AGTGGCTTAA AGCAACACAC
198601 ATTTATTATT ACCTAAGGTC TGTGGATAGA AGTTCTGACA TGGCTTAACT GGGTTCCCTG
198661 CTTCAAGCCT CATGTGGCTG CAATCCAGGT GTTGGCTGAG TCTGAATTCT CATCAGAGGC
198721 TTGATTGTGG AAATTTCCAC TTCCAAGCTC CCTCAGGTTT GTTGAAAAAT TCAGTTCTTT
198781 GCACCGGTAG AAGCTTCTTG GTAGAGGCTG ATTCAACTTC TAGAGGCTGT CTGCAGTTCC
198841 TGTCACCCAG GGTGGAGTGC AGTGGAGCAA TCATAGCTCA CTGCAGCCTT GACCTCCCAG
198901 AATCAATCTG TTCTCCCACC TCAGCATCCT GAGTAGCTGG GACCACAAGT GTGTGCCATC
198961 ACACCTGCCT AAAAAACAAA CAAACGAAAA AAAACCCCCA GAGAACTTTG TAGAGACAAG
199021 CTGGTCTGGA ACTCCTGCGC TCAAGCAATT CTCCTGCCTT AGCCTAAAAG TTCTGGGATT
199081 ATAGGTATAA GCCACCATAC CTGGCATATG GCAAGTCTTG AGCAGGACAA ATACAGATGA
199141 TTTATGTCTG TCTTCCATGG TATTCTAGGT TATTGTTGAG ATGGTCCTCT ATTGTCTTGT
199201 TCCATCTATT GATTAGATAA AACGTTGTTC CTTCTGTTAT TTTTCAACAG TAGCTTTTAT
199261 GTGTCTCTCT TTATCTTAAA ATTCTAACCA AAGAGCTGCT CTTTTCTTGG TGTACTTTAC
199321 CTTTGGTTGA TCCTTCTTAA CCTCTTCTTG CCCTCTGGGG CCTAAGATGA GGGCTGTTAT
199381 CAGATGTGAG TCTATGGGAA AGCAAGCAAG AGGTTCTTCA GCCTCCGTTC AGCCTTAAAT
199441 GTCTAGGTAG AAATCAGTCA TGGCCCTTCC AATGTGGTAC AGACCAGATC ACAGAGACAG
199501 GGGTCTCAGC CAAGGTCTTG TGGCCTAAGC CTTATAGAAA TAATGAGTGT TTACTTACTT
199561 GGAGAACTCC CTTGGAATAT CTTTTTTTGT GAACCTGAGG CAACTTTTGG TGATTTCTTG
199621 ATGTCTTGGG AATCTTGGTC TAGAGCCATT TCAACCTGAT TTCTTTTCAT GTCAGTGGCA
199681 TTTTGTGACC AGATAGTAAA TAAGTTCTAT GATGTTCACT CAGAGAAATA CAATGACTTA
199741 TGATGTGAAG CTTCTGTGGT TCAGCCCTTA CTTCATCTTC ATTCCCTCTT ATCTGCATCT
199801 GTCTCCTGCT TGGGAACAAA AGTCTGGCTT CATTCTATGA CCCCCACGTT GAGTTTCTTA
199861 GTAGCACTTA CTTTTCAATT AGGAGTGTCC TCACTTCTAT CCATCAGACA TAACTAGCCG
199921 ACTAAACAGT CTAAATATAA AAATCATGTC CTACTCCTGC TGAAAACATT TTAATTACTC
199981 CCCATCATTT AATTTTTTCT ACTGGGTTAT CTTTAACTTC AGAGTTGGTC TTGTGTGCAA
200041 CACAAGAAAA CCTGGCATAT ACATGGATTC AAGTGTATGC CACGTGCATG TATTCCTTCA
200101 TGTACTATTT CATGTATTCT TTTTCACATC TGTTTTTTCC TCTAAAATTT ATTTCCTTTT
200161 AAAAATGAAA ATTTTGCATT TGACTAAATT TGTCAAATTT AGTCAAATTT GTTTAAAACC
200221 ATTTTTAAAA TGTTTCCCGA AGTTTTGAGT GAAGTTAGTA CTTCAGAAAA ACTGTTTTGT
200281 ATTTTTCATG TGACCTCAGT GCACTGCTGT GCATTTCCAT TTCTGCGTCC ACACACATTT
200341 GTTTTGAGGA AATATAGGAA CGACAAGATA AAGTTCAAGC TCCTGGACAT TGCATAAAAG
200401 ACCGTCATGA CCTGGTCCTG TTGACTTCCC TAGATTTCCC GCTATTTCCT AAGTTGAGAT
200461 TTTTGGTTTG GATGCTTTGT GTTTTCCTAA AATCAAAATA GGTTTTTGCC TTTTATGATT
200521 ATACAGTAAA TAAATGCTAT TTGTGTGAAA CTTTAAACAA TACAAAAAAA ACCTAAGGAA
200581 GAAAGTCAGA TTCATCTAAA AATCCTTGTG GCCAGAATTA ACTACCTTAG TTATTATTTT
200641 CTCTATCTCT CTCTCTCAAT GTATATTTGG TGTAGGTATA GGGGTGTGTG TAGTGTGTGT
200701 GTATGTATAT ATCTGTTTCT ATTCCTGTAT GTGGATGTGC ACAACGCATC CTGCTTTGTA
200761 CACTACAGTA CTAGCATTTT TCTAATGTAA TTCAATATTG TTGAAAACAT TTTAAAAAAG
200821 CTTGTATATA TACACACACA TACACATACA TGCATGTATG TACATATACA CATACAGACA

Figure 9 (Page 62 of 74)

```
200881  AAAATGTATC CTATGTATAT TCACACATGT ATACACACTC ACACGTACAT AGAGTTTTAC
200941  ATCCATAGTT TATAAATGTT GCTTTTTTTT GGTCACCTTT TTGCTAAGTC TTACACTTTT
201001  TTTTTTTTTT TTGAGACGGA GTTTTGTTGT CATTGCCCAG GCTTAGTGCA GTAGCGCGAT
201061  CTCACCTCAC TGCAACCTCG ACCTCCCGGG TTCAAGCGGT TCTCCTGCCT TAGCCTCCTG
201121  AGTAGCTGGT ACTACAGGTG TGCGCCACCA TGCCTGGCTA ATTTTTGTAG TTTTTTTATA
201181  GAGACGAGGT TTCACCATGT TGGCCAAGCT GGTCTGGAAC TCCTGACCTC AAGTGATCTG
201241  CCTGCCTCAG ATTCCCAAAG TGCTGGGATT ACAGATGTGA GCCACTGCAC CCGGCCAAGT
201301  CTTACACATC TTTTTTTTAC CACTAAACTG TTTACCCAAA CCTGATAACC CAAGTCAACA
201361  GCTATTATGG CTCACACAAT CTTATGTAAA CAAAGATACA GATATATAGA ATTTTCTTGA
201421  TTAATATTCA GAAAAAAATG GAGTCCCTTT ATACGTCCTT AGTATCTGCT TTACTCATTT
201481  AAAAATGTAT TACATTATAT GAAAGTATTC AGGTCAAATG TTATAGATGT GATTCATTCT
201541  TTTTAACTGT GTTATTTTTC TGCAATGACT ATGTATCACA AAGTACTCAG TCTTCCACTG
201601  ATGAAAATTT GGGCTATTTC CAGTTTGTCT TCCATTTTTC TTTCTTCCTC TTGGATTTTC
201661  ACTCAATGTG TTTACTAATT TAGGAAGAAT CAATAGTTTT TATGGTATTA CTTCTCCCAT
201721  TCAAGAATAT AGCATATGGT ATAGTATAGT AGAGTACTTA GTTTAATTTA GCCAGATCCT
201781  GTTTTCTGCC CTTTAATAAA ATTCTATCAT TTTCTGCCTT TGAGTCACAT TTTCCTTGTT
201841  CATATAATTC TTAAAAAATG TATAGTTTTC ATTCTAAGGG AACATAAAAA CTTCTTTCCA
201901  TTTCTATTCC TGTCTAGTTA ATTCTACTAT TGGGAAAAGT AACTGTTAAA AAAAATTCTT
201961  ATCTTTCCAG TCAGTTCACC ACATTTCCTT TATACCTTTG TACTTTAATC CCCAGTCATG
202021  TTGAACACTT CTTATTCCTC ACACCAAGCC TCAACGGGTT TGCTCTTTCT GGAAGGTGCT
202081  TCCCCTGTAT TACTGACTTA TTCATACCAC ACATGGAGAC TGGCGCAGCC CTGTTCTGCC
202141  TGGGAAGCCT TCCCCTGATA CCCCTAGTTG GCAGGAGTCT TCATTTGTTC TTTTCTAGTC
202201  ACCTGTGCAA GTTTGTATTG TTCATGTTTA TCATCCTTCA TTCTAGTTGT CTGTCTCTAT
202261  GTGTGGTCTC ATTCAGTGGA CTCTGAACTC TTATGAAGTC ATGTCATGGG TCAGATCTTA
202321  ATAAATTAAT ATTGTCGGAA GCTAATGTCA TGTCTAGAAT ACAGAAAATT TATCAAAAAA
202381  AAATATAGTA TGTTGGCTGG GCGCAGTGGA TCAAGCCCGT AATCCCAGCA CTTTGGGAGG
202441  CCGAGGCAGG AGGATCACAT GAGGTCAGAA ATTCAAGACC AGCCTGGCCA AAATGGTGAA
202501  ACCTCATCTC TACTAAAAAT ACAAAAAGTA GCCAGGCGTG GTGGTGCCCA CCTGTAATCC
202561  CAGCTACTCA GGAGGCTGAA GCGGGAGGAT CACTTGAACC TGGGAGGCAG AGATTGCAAT
202621  GAGCTGAGAT CATGCCACTG CACTCCAGCC TGGGCGACAG TGAGACTCCA ACTCAAAATA
202681  ATAGTAATAA TAATAATAAT AATTGTATGG AATTGAACTG CTCTGATTGG AAATAGCTGT
202741  TTTTTAAAAA ATTATTATTT TTTAAGTTCC TGGGTACATG TACAGGATGT GCAGGTTTGT
202801  TACATAGGTA AACGTGTGCC ATGGTGATTT GCTGCACCTA TCAACCCATC ACCTAGGTAT
202861  TAAGTACAGC ATGCATTAGC TCTTTTACCT AATGTTCTCC CACACCCCCA CCCCATCCTC
202921  CCCCAACAGG CCCCAGTGAG TGTTGTTCCC CTCCCTGTGT CCACGTGTTC TCATTGTTCA
202981  GCTCCCACTC ATAAGTGAGA ACATGAGGTG TTTGGTTTTC TGTTCCTGCC TTAGCTGTTA
203041  ATGTCAGGCC AGAGAGGCTT AAATTTTTAA GGATCTCTGG ACTTTTCTTC TACATTACTC
203101  TTGATGTTTA TAAATGTTAC AACTTCTTTA ATTTCATTAA ATGTATACCT TATTGAGTTG
203161  ATTTAACTGA GTTAACTTTG TTATATGAAA ATCATGATTG GGAGTGAGGG GGTTAAACCA
203221  GCTACAGAGA TCTTGATTGT TGGTGGTGAA GCAATGCAAG AATTCATTCA TTCAGTAAAC
203281  TAATGTTTAT TAAGCGTGTA CTGTCTTAGT CTGTTCAGAC TGCTGTAACA AAATATCATA
203341  AACTGGGTGA CTTATAAACA ACAAAAAATT TATTTCTTAC AGTTCTGGAG GTGGGAAGTC
203401  TAAGATTAAG GCCCTGGCAA ATTTAGTGTC TGGTGAGGAC AGGTAGCCAT CTTTTTGCTG
203461  AGTCCTAACA TGGCAGAAGG GTTGAATAAA CTTCCTTGGG TTTCTTTTAT AAGGACACTA
203521  ATCCTAGTGA TGAGGTTTCT GCCCTCATGG TATAACTACT GCCCAAAGAC CCCTCCTTCT
203581  AATATTATCA CTTTGTGGGT TAGGATTTCA ACATGAGTTT TGAGAGGATA CAGACATTTG
203641  GATCATAGCA CACACCATAG GACAGACACT GTGCCAAGAA TTGTGGATAT AGTGATTCTC
203701  AAAATGAACA AGATCCCCTC AGAGAGCTTG CAAAATCCAG CTATAAAATT ATGCTTTTTA
203761  AACAAATTAT GCAGTTTGAA AAATCTACTC TGAATCTTAC TTGTGGCATT GAATACTTTC
203821  GGCCACTCTT TCCTTATTAT ATTAAATATT TACTCTTGTT TGGGGGATCC AGTCTCACCT
203881  ACTTTTTCTA CCAGAACTGG TATCAGCTCA TGCTCTGCCT TATGCAAATT AAGAAAATAT
203941  CATACCTTTT GGGTAAATTA AGCCAAGAAA GTTCTCCTTT CTTCTCTTTC TCTCTTTCTT
204001  TCTTTCTCTC TTTCTCTTTC TTTCTTTCTC TCTCTTTCTT TCTTTCTTTC TTTCTTTCTT
204061  TCTTTCTTTC TTTCTTTCTT TCTTTCTTTC TTTTTCTTTC TTTCTTTCTT TCTTTCTTTC
```

Figure 9 (Page 63 of 74)

204121 TTTTTCTTTC TGACAGGGTC TTGCTCTATT GCCTAGGCTG GAGTGCAGTG GTGCAATCTC
204181 AGCTCACTGC AGCCTTGAAC TCCAGGGCTC AAGCAATCCT CCTGAGTAGC TGGGACTATA
204241 GGCATGTGCC ACAACATCAA GCTAATTTTT GCATTTTTTT GTGGAGACGG GATCTCCCTA
204301 TGTTGCTAAG GCTGGTCTTG GATTCCTGGG CTTATGCGAT TCTCCTGCCT CAGCCTCCCA
204361 AAGTCCTGGG ATTACAGGCA TGAGCCACTG CCCCTGGCCA TTATAACTAT TTTCATTGGC
204421 TTATCAGGCA CATGATAACT ATAATAAATC AATAACCAGA ATTTTTAAAT AAAGAAAGGA
204481 AGGAATTGTT TCAACTCTTC CTGCTACCCC TCTATCCCTC AAAAGGGTAG GCTGAATGTT
204541 GTCCTCCAAA GATATCCATG TCCTAATCCC CAGAACCTGT AAATATATTA CCTTATATGA
204601 CAAAAGGGAC TTTACATGTT TAATAAGTTA AGAATTTTGA GATGGGCAGA TTTTCCTGAA
204661 TTTTGCAGAT GGGCCCTAGT GTAATCACAA GGGTCCTTAT AAGAGACAGG CAGAAGAGTC
204721 AGAATAAGAG AAAAATACTT CAAGATGTTA CACTGCTGGC TTTAAGGTGG AGGAAAGGCC
204781 AAGAGCCAAA AAATGCAGTG GTCACTACAA GCTGAAAAGA AAAAGAAATG GATTTTCCCC
204841 TAAAGCCTCT GGAGGGGGCA CAACCTTGCC AATACCTTGA TTTTGGCTCA GTGAAACCCA
204901 TTTTGGACTT CTGACCTTTA GAACTGTAAA TAAATAAATA ATTTTGTGTT GTTTCAAGCC
204961 ATCACAGTTG TGGTAATTTA CTACAACAGC AATAAAATAG AATTAAATAC AGAGATCTGA
205021 GGAGTTGAGT AGGATAAGCC TACTCCAGCA GGTTATTTCG GGAGTATGGT GAGACTCACT
205081 AGGATGGCGG AACTCAATTA AGGAAGTCTG AAGCTGATAA GCCAGAGAGG GAAGGCTCTC
205141 ACTTCATTTT ATAAGGGTTG CGTCACACTA GGAAGATCCA ATAGCAACCA CAGTCTCAAA
205201 ATTAATGATT ACAAATAGGA CACAATTCCA AGAGTCGGGA GCCAAGCAGA AAATGGATTA
205261 GGGAAGACAT GGATGATATG AAACAGGAAG GAGGGGTACA AGGCAGCTTC CTGGGAAGTT
205321 GCCAGGGCAG TCACAGTTCA CATTCATTAG GCTGTGGGCA CCAAATGCAT ATGGAAAATC
205381 TAGCTGACTT AACTGAACTC CTGAAGAGGA ATGAACACCT CATTTATTGA GGAGCTACTA
205441 CCAATTAGAA TATGTATTTC ATTTGTTCAA TAACCCCATG AGTACAGTAA CACAATCCTT
205501 GCTTTACTAA AGCGGAAGCC AATTCAAAGA GGTTCAGTGA CTTGTCCAAG CTCAGGGAAA
205561 ACACTAGGAA GTGAATATGG GTCTGACTCC ATCACTGATT TCAGGAGCCC TGCCCTTTCC
205621 TCCACACCAT GCCCCCTTGC TTTCAGAAAA AAAGGCTTGT TGACTGAATG GTTGTATGCA
205681 CAGTTCAAAG CAGAAACACA CGATGACATC TTTTGAGATA CTCTAACAGT GAGAACTTGA
205741 AAATGAAGTT AAAAATTAAG CGGCAAAACC AAGCCGAGGC TTTCTGAGAA AGTGGGGCCA
205801 AACCTGTTGC CGTCTGACTG CCACGTGGCT CACTATTTAT CCCTGTAAAA ATCTGCAAAA
205861 GTATTTGAAA GGGAAGAAGG GACAGAAAAC TCCCTCCTTT TCCAAGTTAG CCTTATAGTC
205921 TAGGGCTTAA AATACTGGTT TAATGGTGAA GGTAAGTGCT TTTCTTCTTT TTGGGTAGAA
205981 GGATTATTAC TAACTTACCA AAGGTCCATT AAGGGGAGGG AACAGTTTTA GGAGAAGTCA
206041 GAGAAAAGAC ATTAACAGCA ACATAAGGAT CTCCATCTGG TAATATTGCC TAATTCCAAA
206101 ATGAAGAGAC TCTCTGAAAA AGATAACTGA TTCAATGAAG ACCCTAGGGC AAGGCTTGAG
206161 AAGCCACTGG TACCAATGGA CACTGTGGAC AATGGTCATT TCTCCAAGGA CGCTGTGAGT
206221 ATTAACTGTG ATGCTGTGAT TAGTCAGACT GGGATTGGCT GTGGAATGAA ATACTGATCA
206281 GAACTGACAA GATTTGTGTT TGGGACTGTG GCTAACGAGT CTTTTCAGAC TTCTATATGA
206341 ATTTGAAATG GTCTCTCAGG AAAAGGAGAA CATGGCCGGG CCTGGTGGCT CACGCCTGTA
206401 ATCCCAGCAC TTTGGCAGGC TGAGGCGGGC AGATCACTTG AGGTCAGGAG TTTGAGACCA
206461 GCCTGGCCAA CATGGTGAAA CCCTGTCTCC ACTAAAAATA CAAAAATTAG CAGGGCGTAG
206521 CGGCGCGTGC ACCTATGCGC ATGCATAGTG CGCGTGCCAG CTATTCAGAA GGCTGAGGCA
206581 GGAGAATTGC TTGAACCCAG GATGTAGAGG TTGCAGTAGT TGAGATCATA CCACTGCACT
206641 CCAGCCTAGG TGACAGAGTA AGACTCTGTC TCAAAAAAAT AATAATAATA AAAGAAAAGG
206701 AGAACATGAC CAAAGTTATG AATAAGACTG AAGGCAAGAA AATTGTACGC TTGTAGAGAT
206761 CACCTAGCTT GTTGCCCTCA TTGTACAGCT AAGAAAAGGC ACCCAGGGAC ATTGTGGTCA
206821 GCACCAATTT CTCAGAAAGA TAGGCAGATG ATGAGAGGGC CCTCAGTTTT TCTAACACTG
206881 AAGGAATTGC TTCTATGTTT TCTGGTGAAC TCCTCCCCAC TCATCTTGAG GATTCCAGGC
206941 CAGAAGAATC CACTTTAAAA AAGAAACATT TAAAACCAAT TTAACAACCA ATCAAAGGCA
207001 CTTTTATAGA AATACATTTC ATTTGCTGTT GGCCTGTATT TATGGATCTG AGAGGGCTAG
207061 ACTGCCAATA TTGTGACTGT TTATTATTAT TGCTGTTGCT AGTATCTAGA ATATTATACA
207121 ACATATAACA CTTTGCAATT TACGAGGCAT GTCTCATACT TTTGTTTTCA CTCCAAACTG
207181 CCCAGTGAAG TAACATTATC CCAATTCTTC CTATGAAACA GTGAAAGCCC TAAGAGTTTT
207241 TGAAACTTTA CCTGGTTTAC TCAATTTGGG AATGGCAGAG CAGAATTCAG TCCTTGAATA
207301 TCCTCCCACT GCAGGTTCAT GCTCTTTGAT CTAGGTGTAA CATTTACTCT GAGTAAACTA

Figure 9 (Page 64 of 74)

```
207361  GGACTCTGGG CTAACAGAGA TGAAGCAAGA CAGGCTGGAT ATTAGGAGAA TCTAAGAGCA
207421  ATCTAACGAC CATTATAATA AAATCATGAG TTCTAGACTT AAAAAAAGGG AAAAACCTGT
207481  TTTTTTGCTT ATGCGTATAC CATAATATTT ACATTATTTA TTTTTTTCTC AAATTCAACC
207541  TATACGGTGT CAAGTAATTT TTTTTAATAT AACATTTTCC TTTAACTTAA TTTCAATTCA
207601  TTTTTCTGTG TCTACTTACA ACTTTGGCAC TAGAATTCAC AATTTTTTTT TAGAGGTATA
207661  TCTCCTTAAA GGGAAGGGTT CTGACACTGT TACATGTTCT CAATTGTTTG CAAATAGGTT
207721  AATAATTATT CCAGTGTCTC TAAGTACATA TCAACCATGC CAGTGTTCAG CCTCCATAAT
207781  TTTATTAGCT TCTGTGCTTA TTTTGGAAAA ACATTTCCCA TTACCATGAA AGACCTCAGT
207841  TTAGGATGGT TTGGTATGTT AGCCTGATTT CTGCATTCGT CTCATGCAAA GGAAAATAGG
207901  AAACGAAGAA CTGAAATTAC CTATTGATAC AAAATCAAAG TAGCATTTGA AACCATAAAA
207961  CTTAAGTAGG GCTTTTCATC CTTTCTCGTT AGACAGCAAC AGAGAATGGG AAGAAAAACT
208021  AAAGTGATGG GTTTGTGATA CAATTCCAGT AACATAAAGA GCAAGGAGAA GTAGTTTTGT
208081  TGTGTTTATG TTTAATATTC AAAGCTCAAC CTAAAAGTAT TTTTCATTAT CAAACTTCCT
208141  TCTAGAATAA ATGATTAAAA CTTGATTTAA AATATACAAA TTCTCCTTTA TAATACCTCA
208201  AAATGGAGCT ACCCCATTGA GTTTTAAGCT TGTGATTAAA ATATTACGAA AACAAAGGGG
208261  AAGTTGTAAT AGGTAGAACA AGCAGTAGTC TAGGCATTAG GGGATCTGGT GCTGGCTCTG
208321  TGCATCATGT GGTTTCAGGC AACTTTTCAA ATTTTCTACG CAAATTTTCT TATCAATAAA
208381  ATAAACAGTT GGGCCAGAGG ATCTCTGAGT CTCTTTCAGC TTTCAGTGTT TATAAGATTG
208441  GAGAAGTTGG TGGGAAAGCT TTAAGTGGAG TGTAAGTAAT TGCAGCTGCA TGTACAGTTA
208501  AAGAGTTGCC TTCAGCCAAG CCACGGGATC TTGCATAAAA AGTGAAATCA AATAGAAAAT
208561  GGTCCAAACT CTGGGTTTGA CCACAGATGA CTTCAGCTAG GATCTGAGTG TAGAGCAATG
208621  AGCTGAACTC CTGATATCCA GATGTTAGCA AGACTTGGAG GCCTTCTAAG GCAGAGCAAC
208681  AACCAGTATC TGTCCTGGTG CTGACCTGAT CTTACTAGCA ATTGGGCCTC CATTTGGGTC
208741  CATTGTACAA AACAACAACA ACAACAACAA TAAAATCTCC AAACACCCAA AATTCAAAAT
208801  TTAGATGGAG AGATACTATT CCCAGAATTC TAGAGATATT TGGAAAGCAG AAAACTATAC
208861  TTGCCATGCT GATGAAGTCC AATTATTGCT CTTTTAAATA CATTTAGCTA CTTCTGAATA
208921  TAAAATGAGT ATCTACTAAT TATTTACAAA ATCACTTGGT AAATATAGAA AGTCACAAAG
208981  AATGAAGTGA TCATCCTGTT TTGTAACCCA GAAATAGTCA TTACTGGCAC TTGTGTGAAT
209041  CAGTTTCTAT TCCTGTATGT GGATGTGCAC AGCGTATCCT GCTTTGTACA CTAGAGTACT
209101  AGCATTTTTC TAATGTAATT CAATATTGTC GAAAACATTT TAAAATAGCT TCCATCACAA
209161  TAATCTATCA AATTGACTTG CCAGACTCTC ATTATTAGGT TAATTTATCT CTAACATTAT
209221  GCAGTCATGA GTAATACTAC AAAGGATATT TTTGGACACA ATTTTTCATC TATGCCTTTC
209281  TTTATAATCC TTCATCCTAA GGTCACAGAT TATGAATATC TTTAAAGTAC GGACAAGTCT
209341  TTTAAATTTT GTGTGCAAAA ACAGTGCAAA GCCTTGAATG ATAAAATAGA GGTTTGATAT
209401  ATGTGTTTTT TTGTTTGTTT GTTTTGAGAC GGATTCCTGC TCTGTCCCCC AAGCTGTAGT
209461  GCAGTGGCAC GATCTTGGCT CACTGCAACC TTTGCCTCTT GGGTTCAAGC AATTATCCTG
209521  CCTCAGCCTC CTTAGTAGCA GGGTCTACAG GCATGTGCCA CCACACCCGG CTGTTTTTGT
209581  ATTTTTAGTA GAGATGGGGT TTCACCATGT TGGCCAGGAT GATCTCGAAC ACCTGACCTC
209641  AAGTGATCCA CCCACCTCAG TATCCCAAAG TGCTGGGATT ACAGGTGTGA GCCACTGCAC
209701  CCGGCCGATA CATGTGTTTT TAAAGTCACA GAAATTTCAG ATGTCTTGAA GGATTTTAAG
209761  CAATTTAAAA AATAAAGTCA TAGAAGCTTC AATTTAGGAA TGAATGGAAA ATTGATGATA
209821  TTCTTAGGAT ATGGATTTTT CCTAAAAGAA ACAAATGTAT GCATCCCCAA AGATAATTTG
209881  ATTAGTATAC AAATATTAAA TTAAACATGT CCATATTTAG AGCCATGAAT TCTCTTTGCC
209941  TGTCACAATA GCTGGATTTA TTCACAATTG TAGTAATTAG TCCCTGTTCA TTATAATTTT
210001  CTAGGTGATA TGAAGACTTT GTCAGTCCAA GCAAGTGTCC ACATTGTGTG TAGCAAACAT
210061  GAGAATAAAC ATTTTAAACT TTTAAATGTA ATACATATTA GTGTTATGTA ATGTCATCCT
210121  TCATGTTCGA AGGCACATGG AACATTGTTC TGGTGGTACA GAGGGGAGAG AAACACCATC
210181  AGAATGAAAG GAAAGACCGC TCTGGAACCT TCCTCCTTAG CTCTTGAGCT TAGTTTAATT
210241  GTCCTGTCTT ATGGTCTGCT ACAAGCAATA CCACTCTTCA CCTTCGCATG CTTCTCTGTG
210301  GTTTGATAAA GTACATGCAA TTTTTCATTT AATTCTTCCA GCTGCACTAA GAAAGGAGCC
210361  TTATCTTTAT TGAACAGATG AGGAAATGAA TGATTAGAGA ATTTAAATGA CTAGCTCTAG
210421  GTCACACAGC TGGAACTTAC AGCCAGATTT CCTTTTAACA ATCCTGTAAC CAAAAGCATA
210481  CCAGTAGTGC CCCATAAAAT GTAAGTTATA GAGCTGTGTT GGGTCAAAAC TTTTACTGAT
210541  GCTAAGAGGA GGCAACATTA ACAAGGGGAA ATTATTTGTG TATTATGTTT TGGATTATGT
```

Figure 9 (Page 65 of 74)

```
210601  TCTCTCCATA GATAAAAGAC TGTCGTAGTA AAAGAGATTC AGGGCACAGG GAAACTCCAC
210661  CACAAAGCGT GGTACCATTT CCCACAGAAG CTAAATGGAC GGGAAGCCTG CCACCAGGAA
210721  AGGTAAAGCC ACTGCTCTTG TTTGCAGGCT ATGTTAATAA GCTGAAGCTT ATTCCGACAC
210781  ATTTACACAT CTCTGCATCA CACTGACCCT TCGTAAAGAT ACTCCCAGTG TAACATTGGA
210841  GCCAGCTCCA GCCCCTGATC CTGTTGCTTT TTCCTTAGCC CCATGAAATC ATCTGCGAGA
210901  AATTAAGCCA AATAAGCAAT AAATCCTGGG ATCTAGGGAG TGGAATAAGT TTTGGGAAAG
210961  TCTTTTTTTT TTTTTTTTTG ACTGAGTCTT GCTCTGTCTC ACAGGCTGGA GTGCAGTGGT
211021  GCGATCTCGG CTCACTGCAA CCTCTGCCTC CCGGGTTCAA GTGATTCTCC TGCCTCAGCC
211081  TCCCGAGTAG CTTGGACTAC AGGCACACAC CACCATGCCC AGCTGAATTT TTGTATTTTT
211141  AGTAGAGATG GAGTTTCGCC GTGTTAGCCA GGATGGTCTC GATCTCCTGA CCTCGTGATC
211201  CACCGGCCTC GGCCTCCCAA AGTGCTGGGA TTACAGGCAT GGGCCACCAC GCCTGGCCCG
211261  GGAAAGTCAT TTTAAACCAA CCTATGTATG AATCCCTACT ATAATATTCT CACCAAGCGG
211321  CTGGCTCTTT CTCCTGAGCT TGGAAACCTC CAGTAAAATG GAAATAATTA TTTCCCAGAC
211381  CACCACTCTT ATCTGTGAGC TTTTTTGGCC ATTAAAAATT ATTTCTTCCA TTATATTTTT
211441  ATCTGTGTCT TCACAGGTTT TCTCTTTCTT TCACTTTAGT GCTTTTCTTC AAATAAGCAG
211501  GAAAAATCCA ATCTATCATG CACATGGGAA CCCTTTCAAT ATTGGTCTGT GGTTGTTCCA
211561  TTTTATGGGG ATGCTTTTAA AGAAAAAATT TGTCCTTTCA ATATATTGAA TATCTTCCAG
211621  CACCACATCA CCTGCAAGCT TTGTAAAAAT AGTTCTACAT ATTAATTTTT TTTTTTTTTG
211681  AGATTGAGTC TCATTCTGTC ACCCAGGCTG GAGTACAGTG ACATGATCTT GGCTCATTGC
211741  AACCTCTGCC TCCTGGGTTC AAGTGATTCT CCTGACTCAG CCTCCCGAGT AGCTGGGATT
211801  ACAGGCATGC ATCACCATGC CTGGGTAATT TTTGTATTTT TAGTAGAGAT GGGGTTTCAC
211861  CATGTTGACC AGGCTGGTCT CAAACTCCTG ACCTCAAGTG ATCCACCTGC CTTAGCCTCC
211921  CAAAATGCTG GGACTACAGG CGTGAGCCAC TGCACCCCAC GTAGTTTTTT TTTTTTTTTA
211981  AGTTGAACAT ATGTGAAGGC AGGACCTAGT GACACATAGC AATAACATTT CCAAGTAGAC
212041  ATTACACTAG GGAATTAGTC AAAGTGCTCA TTTAAAGTAC CATCTCTCAA ATGTATTAAA
212101  AGAGAATCCT TGGATGTGCA ATACCTTAAT TCAAAGGCAG CTCGTTATGT ATAAACTCTC
212161  AAGCTTTGTG ATAAACAAAT GTGCATAACA GATGGGACTA TTGACTTACA GCCCAGGGAA
212221  TTTTATTGAC GCTGAGAAGG TTATGTGACT GGCTCTGCCA CTGTCATCCC CATTCACTTC
212281  ATTTTGGAGC AATATGACAT AAATGCCTTA CATGTGGGTT TTCTCTATTT ATCATGTGTT
212341  TCCTATCCCC TTGAAAGATG GCCATATTTG CTTTACTTGG TTATAAGATC CCATATTCGC
212401  TGTCTTGAAG CCAACCAAAT AATTTGACAA AGTGGGTTTG TAGTGCTGGC TATTTTGGTG
212461  AAAAAAAGAC AATGAGACTT CATGTGTCAT CCAAAGTTCT ATCAGATCGA GCTGTGAGAG
212521  AAAGGAAAAG AAAGGGGTCT CAGTCAGGAT GCTCACTGCA TACATCTGTG TTGTTGTCTA
212581  GGTCCAGATT TCTGTTCATT ACGCTATGGG CTGGCTCTTA TCATGCACTT CTCAAACTTC
212641  ACCATGATAA CGCAGCGTGT GAGTCTGAGC ATTGCGATCA TCGCCATGGT GAACACCACT
212701  CAGCAGCAAG GTCTATCTAA TGCCTCCACT GAGGGGCCTG TTGCAGATGC CTTCAATAAC
212761  TCCAGCATAT CCATCAAGGA ATTTGATACA AAGGTAAGTA TGATGGAAAA TAGGGCTCTT
212821  TGTTGAGAGA AAAAACTTTG AAAGGAAGGC ATAGATCTTG ATTCTGTGGA GTATGGAAGT
212881  ATACATTTCC AATGACAAAT TAAAACTGAC TGGAACTATT TTTCTTTGAG ACATTGCTTA
212941  CTTCAATAAT AAAAATAAGA TTTCATTGAG GTTATTATGA TTATAAGGTG GGGGAACTGT
213001  AGAGTTAAAT GTGAAAAATT TAAAAATGGA ACAGTTTATG TGATGTCTTC AATGAAAAAC
213061  TAGGTATTAC CTGGGCACAT TCTTATAGGT TACTCAATCC TATTCAGTTC TCTGCCTGTT
213121  TTATTGTTTC TGAGCAATTT TATATCCCTG TAAATTCTAT ATAACCAATA GAAATGCAAA
213181  CGATTCTTGT CCATAGCTTT GCAAATAAAT TTTGCCAAGA GAAAAATCAG TTAAAACTTT
213241  TCTCCACTCA CCTCCCAGTT GAATTAGCCA ATTTTGCTGT TTGTTTGTTT GTTTGTTTTT
213301  TGAGATAGAG TCTTCCTCTG TCATTCAGGC TGGAGTGCAG TGGCATGATC TCAGCTCACT
213361  GCAGCCTCCG CCTCCCGGGT TCAAGAGATT TTCCTGTCTC AGCCTCCCAA GTAGCTGGGA
213421  GTAAGGGGGC ATGCCACCGC GGCTGGCTAA TTTTTGTATT TTTAGTAGAG ACAGGGTTTC
213481  ACTAGGCTGG TCTCGAACTC CTGACCTCAG GTGATCCACC CGCCTCGGCC TCCCAAAGTG
213541  TTGGGATTAC AGGTGTGAGC CACTGTGCCA GGCTCTGCTG TATATTTAAA GTCTATTTCA
213601  GCATTGCTTC CTGCTTGTGT TATGCGTGAT TCTTTGAGTT TTCCTTTGAA CCAGTTATAA
213661  CATCTTACTT ACTTCCTCCA TTAATCAATG AGTTAAATAA AATCTTTGTT GTATGTTTAT
213721  TTTACATTTA TATGAAAACC ATGAATTTAC CCAATTAAAA AAATTATCCT TTAAATTATC
213781  TTGTACTGTA CATTTCCCAT GTCATCCCTA TAATTCATGA TTAATGATTT TATTACATTG
```

Figure 9 (Page 66 of 74)

213841 GACCTAGCTT ATTTACAATG AGTACATAAA TTTATTGTCT CCAGTCTTTC CTCCATTATC
213901 CCGTCTACAT ATCCACACTG AGTAGATTCA CTACTCAGGA ATCTTGGACA CCTTCAAGTT
213961 GCCAAACATG CAGTGTTCAC TGGACATGCT GTGTTCCTTC AGAATTTGGG CCTGCTTCTC
214021 AGCACACTCA CATCTGCTAT CAATGACCCA TGGAAAGTTT TTGCCCTGAG CAAGCCAGAG
214081 TCCCTGTTAG TTTCTTCCAA ATGCTACAAG TTCACTTTTG CTATTTTTTC CGATGAGATA
214141 AAATTTTCCT TTTTGACTTT CTACAAATCA TAGTCATTTT TCAAGGGATA GTTCAAGTAT
214201 TGCTTCCTTT CTGGGACCTT CCCAAATTAT TATTTTCTCC TCTCAAAGTC TCTGTTTTAT
214261 TTATGTTCAT CCTCAAATCT TGATTCTCAC ATGAATCATA TACCTTGTAT TATTTATAGT
214321 TTTTTTGAGT AGGTAAAATA TTTCATATTT TATATTCTTT GGCTCTCTAC TTTATAGCAT
214381 GATGCCAGAT ATTTAGGGGC CTTACTGCAT TTATTTTTTA TTTTATTTTA AAATCTATTT
214441 TATTTTTTAT TTATTTATTT TAAAATCTAT TTATTTTTAG GTAAATATTC AGGTAATATA
214501 ATTTATGTAA TTATTTAGGA ATTTTAGGTA GTTATTTTAA AATAATTCAA ATTATTTATT
214561 GAGTTATATC AGAAGAATGT GATCTTATTC ATTTGTAATA TGTGTTTTAG GAACTCAGTT
214621 CAGCCAGGGC AGACCATAAT TCCCAAACTT GACTTTTCTT TTTAATTAGG CACTGATTTT
214681 GGTTAAGAGT TCAGTAAAGT TTTGTGTGTG TGTTTTAAAA AATTCTTTGA TATAAGAGTC
214741 AAGATGTTAC TCAACTTTTA CTAGAAGCAA AATAGAGGAA GTGCTTTCAC AGATGAAATA
214801 TCTCTCAATG TTTTCTTCCA TTTACTTCTT CCTATTATTC ATCTATATAA TCATTTTCTT
214861 TACCTCTTTT CTTCATTTCT TCTGTTTTTC TCTCCTACTA AGACAAGCAA ATTAGGGGTA
214921 TAATTGGTTA TTTGGGAAGG TAGGAAGAAT ACAGAGAGAA ACAAAAATCA ATATTTTATA
214981 CTAGGGTCTC ACTAACCTCA AGCAACTCTG ACTGTAAAGT AGATTTTCAT AATAGGACTT
215041 CTTGACAAAG AGTTTTCCTA TTTTTCCCCC AGGCCTCTGT GTATCAATGG AGCCCAGAAA
215101 CTCAGGGTAT CATCTTTAGC TCCATCAACT ATGGGATAAT ACTGACTCTG ATCCCAAGTG
215161 GATATTTAGC AGGGATATTT GGAGCAAAAA AAATGCTTGG TGCTGGTTTG CTGATCTCTT
215221 CCCTTCTCAC CCTCTTTACA CCACTGGCTG CTGACTTCGG AGTGATTTTG GTCATCATGG
215281 TTCGGACAGT CCAGGGCATG GCCCAGGTAT CCAGATACTT TCTCATTCTT GGTGGGATCC
215341 AGATTTCTGA ATTCTACAAA ATATCAAAGG TCTTAATGAT TTTCATTTCA GGGAATGGCA
215401 TGGACAGGTC AGTTTACTAT TTGGGCAAAG TGGGCTCCTC CACTTGAACG AAGCAAGCTC
215461 ACCACCATTG CAGGATCAGG TAAGTGTGCA CAGATGGGTC ATAGCTTTGT CATCTGTTCC
215521 ATCCCACTGT GTCTTATCTT CTATGAATCA AATGGTTTGG GGAAGAGAGA GAAAAAGTAC
215581 TGCTGAAAAA TTCAACAATA TAAGACACTT GCATCACAAA TAGGAAAGAT GCATCTGTGC
215641 AGTAAAGACA TTGAAGCTTA GAAGTAGAAA AAACCATTGT GAGCTAGGTT TCAGCTCAGA
215701 AAAGCCTTAG TAGTCAGAAA AGCCTTAGTA GTCAGAAAAG CCTTGTCGGA AAAAGTTTAA
215761 ACCTTTAAGA ATTGCACACA TGGAAAAAGA TCAAGTAAGC TATATATACA CCATCTTAGC
215821 AATGATTTTG AAGTGAGAAT TAAGGCTACC ACAGCTCCAG GTGGTAAGGA GAGAAATCAG
215881 GCTGGAAGAG TTTGAAGTTT CTGTATTATT CTAAGCTCTT TACTATTCTA TTATGAGCTC
215941 ATTAATTCTC ACAACAACCC TCTCATATAA GTACCATTTT AAATTCTTAT TTTACAGAGA
216001 AGGGAGTTAA GGAAGGTGGA GATTAAGAAA ATTGCCCAAA TACAAATAGC CAGCAGGTGG
216061 TAGGTCTGAG ATTTAAGCCC ATGCAGATTT TAGCCCCAGA GCAGACATTC TCAATCACTA
216121 TGCTAGACTG CCTTTCCATG GTATGTGATC CTACTCAGGC CTCTACAGCT TTATCATTGC
216181 TGTTCTCCCC AGCCTGTCGT GCTGAGAGTA TATACTCGAA GAGCAGAACT AAAATTCCAT
216241 CCAGCTTCTC ACTCCTAGGT CCACTACACA GCTGCATCCT GCAGACTTTT ACCTCAAGCA
216301 ACCCTCCTGC GTTCTTGCTT CCTTCCATCA TAGTTGTAAC CATCTCCTCT ATTTGCAAAT
216361 ACTATCTGCT GATCTCTCTC TTCTAGACTG GTTTCTTTCA ACCTTCTTCC CACCAAAACC
216421 AAGTTAGCTT GCTAAAATAA AGATGGCGCA TTTTTACTCA CCCGCTTGAG AATTTTCAAT
216481 GTGTTCCTTC ATGCTTACAG AGTAAAGCCT GACCTCTTTA TTGCATGAAT ACAAAAGTTC
216541 TTAGCCATCT GGCCCCAACC TTGTTCCACT CAACTCCCCT GTGCAAGCAT GGCTCCAGTG
216601 GCACTGGACA TTGGCTGCTC TCCACATAGA TCTGCACTGC ACTTCCCTCT GGCTCTGCTC
216661 CCGTTAGTTT ATATGCCTGG AAAGTTCTTT GCCCCTGTTC CTTGTGCCAA AATTCCATCT
216721 ATCCTATTGC ATAGCTTATG TAAAAACTTC CTAAACCTTT TTTTTTTTTT TTTTTTTTTT
216781 TTTTTTTTTT TTTTTTGAGA CGGTGTCTCA CTCTTCCGCC CAGGCCGGAC TGCAGTAGCG
216841 CTATCTCGGC TCACTGCAAG CTCCGCCTCC CGGGTTCACG CCATTTTCCT GCCTCAGCCT
216901 CCCGAGTAGC TGGGACTACA GGCGCCTGCC ACCATGACCG GCTAATTTTT TGTATTTTTA
216961 GTAGAGACGG GGTTTCAAGC CAGGATGGTC TCAATCTCCT GACCTCGTGA TCCGCCCGCC
217021 TCGGCCTCCC AAAGTGCTGG GATTACAGGC GTGAGCCACC GTGCCCGGCC AAAACTTCCT

Figure 9 (Page 67 of 74)

```
217081  AAATCTTATA ATTATTATCA ATTTATCCTC AGATATACTT CCACGTACAT TGTAGTTTTA
217141  TTATATTTAT ATTTTACATC TTTTTTTTCA AATTGCAGTT TGGGACCCAT TAGTGAGTCA
217201  TAAAATCCAT TGAGCGGGTT AAAATCATTA TTTTAAAAAA TGAGTAGAAT AGAATAGAAA
217261  TTGTTGGAGT GCATTGGACA TGGTAAAGTT AAATATCGAT TCATGAAACC ATCGTTTGAG
217321  GCATATGTGT GTGGTTGTAT GTACAAGTGT TTATGCATAT TGGTGTGTGT GTTATGTTAC
217381  CCTGTAAAAT GCATTTCTTA CTATAGGTCT CTGTGAAATA TGTGTCTTGT TGTTTTTTAA
217441  TGTAGACTTC CAAAGCCTAC ATGGCATTTC ACTAGTGACA ATCAATTTTA TTCACATTTT
217501  TCTCTCCAAT TGGACCAGAA GCTCTTTGAG GGCAGGGGCT GTATCTTACC GATTTTTGTA
217561  AGTCTTTCAT TTCCTGCCCC TAGCCTCATA TTAGATCATG CAAGAATGCA ACTGTAATCA
217621  CAAGAAAATG CTAATGGGCT GTGATAGCAG AGAGTTACTG TGACAAACTA AGGGATTTAG
217681  ATTTGGTCAC ATTGGTGTTG AGGAGCCATT GAAGAATCAG AGAGTGTGTT ACTATTATTT
217741  GTTAATTTTA ATTATATCAT ATTACTTTAC TGGGGAAAAT CTGTGAGCTA TTTTAGAAAT
217801  AAATACTCTC ATTGCCCAAT AATTCTAAGT CTGCCACCTC ACTGTTGGGA CATTGTTTAG
217861  GGAGGCCACG AAGTCTCAGC CTTTGATATT TTCATAAGTG TTTTTCTCCC TTTTTCCTTT
217921  AGGGTCAGCA TTTGGATCCT TCATCATCCT CTGTGTGGGG GGACTAATCT CACAGGCCTT
217981  GAGCTGGCCT TTTATCTTCT ACATCTTTGG TGAGTCACTT TCTCTTAAAT CCTAATGCCT
218041  CCATTTCCTG AGCATCCATT TTGGCACCTA CACCACCCAC ATTCTTCCTA TATGAAAGAA
218101  AATGTCCTTT ATCAAATGGA AGATGATAAA AAATGTCAAC GGTTGGTATC ATTTTTAATC
218161  TAGTCACACA ACCTGATTAA CACCTTCCTG GTGGTTCTGG GAAGCCACAC GCAAAAGGTA
218221  GAGGAGTTGA CTATTCACAT GGCACCCACC GACTTGTGAT GCAGTCTTGT CCTTCCATAT
218281  CAAGCACCTT CTGCAGAATC TCTACCACCA CATCTGAAGT GCCTGCTATA TGCAGTTAAG
218341  ATGTCAAAGA TAGTGAAGTA CATTTTCAAT GTGTCTTCAT ATTTCATTAT AATTATTATT
218401  TCTGTCCAAG ATGCCTTTCA CCTGTTCTCT ACCAAGTTAA TCTTGCAAAG TTCAATTCAA
218461  ATGTTCCCTT CCCCATGGGC CCTTCCAGGG CTTACCCTGT CAGATTCTGG CATTCTCTCC
218521  TTTATGATAT TTCCTCTCTA GGTTATGTTG GTGTGTAATT ATTTATTTCT CCTTTTCTTT
218581  CCACTAGACT GTGAAATGCT TGAGGCAAGG AATCCATTCT ATGTTTTCAT CACTTGGGTG
218641  TCATCATGGT GCCTGATTTT TAGCTTTAAA ATAAAAGAAT CAGTGAATCC AGTAATTAGA
218701  GGGGATTTAA AGAAAACTAG TCCTCAGAAT CTTTTAACAT AGAATGTTCT TCAAATAAGG
218761  AATTCCAATA ATAAGACAAT TTTCTACACT TGATTTTGTT TTTATAGCCA AATGGTGTCA
218821  TTAAATATAG TCCTGGCCTG AATGGCTTTC TCATTAATGA TGCTAATTAT TTTGGTTTGT
218881  ACATGTTAAC CAGGTATTGT ACAAAAATAT TTCTTTTGGG AATCCATAAT GGATGTATGG
218941  CTTGAATACA AATAATACTG TCTCTTGTAA GTGCATTGGA AATTTTTCCC TGCCACATGA
219001  TTTCATGGAA GGTTGTTTCG TGTATGTATG ACTGCAAACC TGACTATTCA GATCTTCCGC
219061  AACAAGACAA CTTATGTGTG CATTAAGAAG TTGCTGCCTA AAATACATAA CACTGTAATC
219121  ATTGGAGACT TTAAAGTAAT TAATCAGCTA TGCAATGCCA CGCTCCTGTT ATCTCCAGAG
219181  GGCTCTGACA TTGACAAATG GTGGCTTTCT ATTTGAGACG TAATATCTAA AAAGCTTTAA
219241  CAGGTTTGTA GAAGGATTGA AAGAAAGAAT GGGAACATTT AGGTCCTTAT GGTAGAATAA
219301  GCATTAATTG ATTAGTGTGT AGAAGGGAGA GGCATGCCAC TTCAGAGGAA ACTTCCTTCC
219361  CCCAGTAAAC AAATCTACCT AAAAACTAAT TTTATCCCTT CTTCCCAGGT AGCACTGGCT
219421  GTGTCTGCTG TCTCCTATGG TTCACAGTGA TTTATGATGA CCCCATGCAT CACCCGTGCA
219481  TAAGTGTTAG GGAAAAGGAG CACATCCTGT CCTCACTGGC TCAACAGGTA CAGTGCACAC
219541  CTTGTACCTG TGGCCCATGC AGAGGTCTCT AGGGCAGGGT GTGGATCTCC TCTGAGAGGC
219601  ACCATCTTGG CTGCTCTAAT ACTCATGCTG ATTAGATCTT TCTTTTCAGC CCAGTTCTCC
219661  TGGACGAGCT GTCCCCATAA AGGCGATGGT CACATGCCTA CCACTTTGGG CCATTTTCCT
219721  GGGTTTTTTC AGCCATTTCT GGTTATGCAC CATCATCCTA ACATACCTAC CAACGTATAT
219781  CAGTACTCTG CTCCATGTTA ACATCAGAGA TGTGAGTTTA CTTCCTATAC TTCTACGAAA
219841  ATGATAATGG TAATAAGGAG AAACAGTTCT GTGTTACCTA TTACATTCTG GCTTTACATA
219901  TAACCATTAA TTTAACCTTC ACAATGACCT TGAGAGAGGC ATTGTTATAA TTCCCTTTTC
219961  ACAGATGTGG AAACAGGACA CTTAGAGGTG AGATAACTTG CCCCAGGTTG CACAATACTA
220021  AGTGATAGAG CTGCTGCAGC ATCCATATTC TTAACCACTA TGCTATACTA CCACACCAGC
220081  TGATTCCAAA GCTTCTTTTA GAAATAATAT TGCTGGGCCA GGCATGGTGG CTCATGCCTG
220141  TAATTCCAGC ACTTTGGGAG GCCGAGGCAG GCAGATCATG AGGTCAGGAA TGCAAGACCA
220201  GCCTGACCAA TATGGTTTAC TAAATATCAT CTACTAAAAA TACAAAAATT AGCCAGGTGT
220261  GGTGGCAGGC ACCTGTAATC CCAGCTATTC AGGAGGCTGA GACAGGAGAA TCGCTTGAAC
```

Figure 9 (Page 68 of 74)

```
220321  CCAGGAGGTG GAGGTTGCAT TGAGCCAAGA TCATGCCACT GCACTCCAGC CTGGGCGACA
220381  GAGTAAGACT CCGTTTCAAA AACAAAAAAC CCAAGAAATT AATATTGCTT TTATCTGGAG
220441  CCCAGAGTGA TGCAGCTTCT GGCCCTCTTA TCTGAGACAG TGTTCTTTTA GTGTGAAAAA
220501  GGATGCTAAT TTTCCCCCAA ACAACCCACA GTATCATGGG GGTAAGTTAA TGGCTGGTCT
220561  GTGTAACTGA CAAATTTTGG TGCTAACGTA TCTCTATAAC TACTCTGTAT AAACTTCCTT
220621  CCTTCAGAGT GGAGTTCTGT CCTCCCTGCC TTTTATTGCT GCTGCAAGCT GTACAATTTT
220681  AGGAGGTCAG CTGGCAGATT TCCTTTTGTC CAGGAATCTT CTCAGATTGA TCACTGTGCG
220741  AAAGCTCTTT TCATCTCTTG GTAAGGATAA GCGTGTGGGC CCATTTAACC AATCCCTTTT
220801  CTGCACATGG TCTCAGAGGG TTCCCTGACA GCATGTCCTC ATTGCCCAGG GCTCCTCCTT
220861  CCATCAATAT GTGCTGTGGC CCTGCCCTTT GTGGCCTCCA GTTACGTGAT AACCATTATT
220921  TTGCTGATAC TTATTCCTGG GACCAGTAAC CTATGTGACT CAGGGTTTAT CATCAACACC
220981  TTAGATATCG CCCCCAGGTA AGAGCTCTAC CTGTTTTTTC CCCTCCTCCA GACCCCTCCA
221041  GAGGTGTTAG ACCTCAGTGG TCGCCGTGAA ACTCTTTAAT GTTACTGACA TTGCACTAAT
221101  GGCAGAATGA CAAATAACTA CAAATATCTG TCTGTGGCCA TTTTTAGAAC AACAAATGTG
221161  GCATTTTTAG AACAACAATT TCCAATCTTG GCCAGTAATC ATTTTGACAA AAACCTTCCC
221221  AAGCTTCCCT AACAGAGATT GAACTGTGTA TGCTGGGAAA AGGCCCACAC ACAGGTGATT
221281  TGGAAAAGTT TCCATGGTGT TGTTCATATT AGCTACCACA TATATATATA TATATATATA
221341  TATATATATA TATATATATA TATATATATA TACAGTCACA ATAAGCCAGC TCCTGTGCCA
221401  AGACTTGCCA TATATCAACA CATCTAATCC TCACAGTTAT ATTAGGTAGG CCCTATTGTT
221461  ATCCCCATTT TATAAGGGAG AAGGCTGAGG CACAAGGAGG TTAAATGGTG TGACTATGGT
221521  CACATAAAGG CAGAGCCAGG ATTTGGACTG GGGGAGTCTG GCTTTGGAGT CTGTGTCCTG
221581  CCCGTTGCAC AAACTGGCTT CTACACTGAG CAGCCAGGGT AAAGAAACGT GGTTCCCAGA
221641  GAGACTGCAT TGCTCCCTGG TTATTGACTT GGTAGATTGG TAATTTCAGG TTTGGCAAAT
221701  AGACATTGCC CTGAATGTCT TTAGGTGAAT GAAAAACTGC ATTAAGCAAA ATGACTTTGC
221761  CATTAGAGCT GAATTGCATT AAAGTTGAGT TGCTGCAGAA GCTGTAGGTG GCTTTCTATA
221821  TAAAATCATT TATAAAATCA TCTTCCCATA GATATGCAAG TTTCCTCATG GGAATCTCAA
221881  GGGGATTTGG GCTCATCGCA GGAATCATCT CTTCCACTGC CACTGGATTC CTCATCAGTC
221941  AGGTTGGGTC AGTTTATTGA ACATCTTCAA GTGGCAGGTA TTGTTTTAGG TGTTGGAGAT
222001  ACACACGGTG CTCTAAAGAT CTGGATGGCA ACACAATTAC TCTATTTACA TGAGCCTCTA
222061  AATCAGACTC TGGTAGGTCA GATTTCCCAG AGGAAGAAAA ATATAAGCTT ATTTTCTCAA
222121  GATGAATAGA TGTTAGATTG ATTAAAATGA GCTGTTCCGG TGCAGAAGAC AGCACGTATG
222181  ACTTCCTAGA GGTACATGAG CATGAAACAG TTCTTAGTTA TGACCAGAAT GAAAGACACA
222241  TGTCAAGGAA TAGCAAGAGA CGAAGACAGA GGGGCAAAAG AAGATCATGA AGAATATGTT
222301  CAGACTAATC CAATTTTTAA AAAATCACAA AAGGGAAACA AAGTGTCCTA GGCCAGTTTA
222361  AAGATAATTT AATGTCTGGA AACAGATCGG CTGTGAGACA TTGCAAGGAG GCTTGCTCGG
222421  TGTTTGGAAA TGCAGGCTCA TGAGGAAGAT GAAAAGACAG ACCCAGGCAG GGATGGAAGG
222481  ACTGACTAGA ACCAACTTAC AAAGAGAAGT TTTGTTTTTA CTACATTTCT ATGTGATCAA
222541  GTTCCCAGGT TAATATTTGA CTAAACTGCT AGGAATCCAC TGTGACTATA ATGCTGGAAA
222601  TGACTTAGTA GGGCTTTCTG AGGAGGGTCA CACAGAAGAC CAAAGAGAAC TCATGTTGAA
222661  TTGAGATGGG TTATAGTGAT AGTTGTCAAC AGCCAATACA GAAACAAAAA AAAACAAAAC
222721  AAACAGCAAC AACAACAACA ACAAAAAAAA AAAACAGAGA AGACACAAAC ACAATGCCAC
222781  AATGCCATTT TAGGCATAAT TTTAAATGAG TAATATTATA TGTTGAAATC CAAATTTTCA
222841  GAAAAACATT AGTGTATTTT ATTTTTGTTT AAAGAAATAA CCATCTCAAC TCAGAACCCC
222901  ATGTGCATTT TGGCCATTTT GTTTCCAATA GTTTCATAAA CTTTCTTAAG TAACTACTGC
222961  ACATTGTTCC TTATATTCCT TGTGATCAAC ATTGCAATAC ACAACTGGGA GGGCTACTAG
223021  AACTGGTGTA GAAGGAACTT GTGAGATTGA TCATTTTCTC TGTTTTTTAC ATCTAGGATT
223081  TTGAGTCTGG TTGGAGGAAT GTCTTTTTCC TGTCTGCTGC AGTCAACATG TTTGGCCTGG
223141  TCTTTTACCT CACGTTTGGA CAAGCAGAAC TTCAAGACTG GGCCAAAGAG AGGACCCTTA
223201  CCCGCCTCTG AGGACATAAA GTTACAAACT TAAATGTGGT ACTGAGCATG AACTTTTTAA
223261  ACATTTTTTA CTTCTCTCCA TATTCCTGAC CATAGACTCA GCAGTTCTTA ACTCTGGCTG
223321  TGTGTTAGTC TTCCCTGGGG AGCCTTTATA AGACACTGAT ACTTGGGACC CACTCCAGAG
223381  ATTCTGAATG AATTGGTCTG GGGTGGAACC CAGATACTAC TAATTTTTAG ATACTCCTTA
223441  GAGGTTTCTA GCATGCGCCC GGGGTTGACA ACAGCTGGAC AAACTTGAAA AGTCAATTCA
223501  TGTGGCCTTT GAATTTTCCT CATTGGAAAG TACTAAATAA ATAAAAATTC ATGTGAAAAT
```

Figure 9 (Page 69 of 74)

```
223561  GATCACTGAT AAATATCTTC ATGGTGGGGC AGGTTATTGG ATGCAGAGAA GATCTGCTCG
223621  GAATTGTAGC CATATGTTAC AGATCTCAGC ACCGATCAGA ACTGTAAAGC TATAATCCCC
223681  AGAATTAAAG TTTTTATTAT TTTTTATACA TTGTAAAACA TAGACGTTTA TTTATGTGAT
223741  TAAATTCTAT TAAAATTTAC ATGCTAAAAT AAAATAGACC ATTTTCAAAT TATTTAGATC
223801  CAGATATTTC CATCAGATTA AACAGATATT TATTTATCCT AGCCCAATTG CAAGAGATTA
223861  ATGATGAGAA AATGACCAAT ACAAGATTAA ATAAATGAGG TTAACTTAGA AATCAAGGAC
223921  AGAGAAGATA GAACTGGAAA GCTTGTATTG TGAGAAGAAT GAATGTGAAG GAAGGCAATG
223981  TAGACACTTC CAGAAGGGAT AGCAATATAG TTTAGACCAT ATAATGAAAA TTGGAGAGAG
224041  ATGACAGAGA CACTTTCAAG TGAAATGACA ATTTATATGG GGGAGAAAAA TATTGAAGAC
224101  ATAACAAGAT GAGAAAAGGC ATAGAAATGT ATCACATACA AGGCATAGAA GTGTATCACA
224161  TACAAGAGAA GTTCCTTTTG AGCGTAGAAA AAGATAATTT AACCTTCTTC ATATTTTTCT
224221  TACTTTCCCA AGATACTCAG ATAGGCAGCG TCAACTCTAA CAGGAATTAA TTTGGCTCCT
224281  AACACTTAAG ACATATCCTT TAGTTTGTCT CCTCACACAG AACTGATTCT GGTTTTGCCA
224341  CAACATGTCT AGAGAAGAAG TTCCCACCAT ATTTTAAATC CTATTAAAAA ACTGCTTGGA
224401  CAAGAACCTT GGGCTAATTC AGCAGATGAA GAGAATCTCC TAATGCAAAT CAATGGGTAT
224461  TTTTGAGCAA GTTTTTCAGA AAAACAGAGT GTCAGGCCCT GAGGGTGGTA CTAAGATGAG
224521  AACATTGATT TTGCCTTCAT GATATTGACA ACACAAAGAG GAAAGGGGGT TTGCAGAAAA
224581  CTAAAAGAAG AAGTAGAAGA AAAAAGAAAG ACATAGTATA ATAGGTAGTC AAATTATGTA
224641  CAGAAAAAAG AGGAAAAAAA ACCAAAAAAG GGTGGGGGAC AGACAACCCA ACTAAAAAAT
224701  GGGCCAATGA CTTGAACAGG GACTTCATAA AAGAGAAAAT GTAAGTGGCT CCTTAACATA
224761  TAAAAAGATG TTCAACTTCA TTAGTCATTA CAGAAATGAA AATCAAAACT ACAATGAAAT
224821  ACCACTATAA AATTAACTAA TGGATAAAAT GAAAGGAGAT GGAAAACAAA ATGTTGCCAG
224881  ACATGTGGAG CAACTGGAAC TTTCATACGT TACGAATGTG AACTTTGGAA AGCTGCTCGG
224941  CAATATCTCC TAAAGCTAAA TGTACAATTC CAGTGACTCA GACATTTTAC TTAGAAATGC
225001  ACATATACAT CCATAAAACA TGTACAACAA TGTTCATAGG AGCACTATCT GTAATAGCCT
225061  GAACAGGAAG TTGTCTGTTA AAAAAAGAAT GAGTAAATAA ACCACGGTCT ATTTGTATAG
225121  CAATGAGAAT TAACAGACCC CAATATATAA TAGATGAATG GGTCTCATAA GCACAATATT
225181  GATTAAAGGA AGACAAAACG CACATTCTTT TAAAGGTTTA TAAAATACTT TTTAAAAACA
225241  GCTACAACCA ATCCGTCCTG TTAAAAATCA GTGAGCGATT TCCCTTGTGC AGGGATGGGG
225301  GTTGTGGCTG GATGGATGGT ACTTAAGAAG TGCTCCTGGG GTACTAGAAA TATTTTATTT
225361  CTTGACTTGG ATGTGTGTTT ACTTTGTGAA TATTGTACAT TTATGATTTG TGCACGTTTA
225421  TGAATGTAGA AAATAAAACA GAAAGCAAAT TCAAAGTATC ATCCTTTTGA GAGCTTCTGC
225481  TCTGACTTCG TTTTGACCAA TGGAGCAGTT GGGAAGGGGT CTTGGTCCTT CGGTCCTTTG
225541  CTTTTTTTTT TTTTTTTTTT TTTTAGACAG AGTCTCACTC TGTCGCCCGG GCTGGAGTGC
225601  AGTGGCTCGA TCTTAGCTCA CTGAAAGCTT TGCCTCCCGG GTTCATGCCA TTCTCCTGCC
225661  TCAGCCTCCC CAGTAGCTGG GACTACAGGC ACCTGCCACC ATGCCCGGCT AATTTTTTGT
225721  ATTTTTTAGT AGAGACGGGG TTTCACCATG TTAGCCAGGA TGGTCTCGAT CTCCTGACCT
225781  CGTGATCCGC CCACCTGAGC CTCCCAAAGT GCTGGGATTA CAGGTGTGAG CCACCGCGCC
225841  CGGCCCCTGG TCCTCTGCTT TCATGTTCTT CTTGGTCCTG TTCCTCCTCC TCTTTTGTTG
225901  GAACTTCCAG TATCAGAGCA GGAAGGAAGG CAATGGGTCA ATCGATGCTG TCAGCTTTTG
225961  GATCAAACTG CAAGTTCTCA AACAGCAAAA TTAATGAGCT CAGGCTTTGA AGAAACCATG
226021  ACCCTGAAAG CATCAGTTGC TTCCAATTGC ATCAGTTGCC ACGGGTGATA AGAACAATGA
226081  TGACTCAGAA TGCCTAGGTT TTCCCAGCAG CTTCTCTGAG GTTTTCCCAG CAGCTTCTCT
226141  GATTGATTCC TGACAGATGA CTTCGGTGTG TCAGACTTTC AGGGTATCTT TCCTTATGTG
226201  ATGGTTTGAG GAAGAGTTAC CATTCACATT CCTAATGGCT TCAGAATAGA TGCAATTGTG
226261  AACTGATAGG AAACATTTCT AATTCATCTC CCCTCCCCAT CCCTAAAGGA TTGTTTCTAA
226321  CAATAGTCAT GAAAATTAAT TCACTTTTCT CAAATAGTTT ATTGTCATCT ACCTAATGAT
226381  GAGATGACTT ACTTTTTCTC CTTGACTGTT AAATATTATG AATTATATTA ATGTATTTCT
226441  TAATGTTGAG CTTTCCCTTG AATATTCTTT TGATGTACGA CAGAATTTGA TTCACTAATA
226501  GTTTATTTAG GACTTTGGCT GATGTACTGA TATATGAGAT TGGCTCTGTA TGCATACATG
226561  TGTTTTGTGT ATCTTTTTTG TGTCTGGATA TGGAGCTTAT GCTGATTTCA AAAACAAGAA
226621  AGGAGAACTT TCCTTTTTCC CCATTACTCT GAAAAAGATT GACTAGAATG GAATTTTTAT
226681  AATTGCTGTT GTTATTTGAA AGCTTGAAAG CATTGGTTTG TAAAAATCAT GCAGGCTGAA
226741  AGCCATTTTG AGGAGACTTT GATAACTTTC TCAATTTCCT TCAGTTACTG GTCTTTTAAG
```

Figure 9 (Page 70 of 74)

```
226801  GGGTTTTATA TTTTTCTTTG ATCAATTTTG ACCATTTATG TTATCTTGGA GGATCATCTA
226861  TTTTACACAC TATTTAAAGT ATATTTGCAA AAATTCAACT GTTTTATCAG GCTATCTTTT
226921  TAATAATATA TTCATTTTAT CTATATCTGA GGTTTTAGCT TCTTTGTACT TCTGACCCAA
226981  TTGCATGTGT GCTTTCTTTC TCCTTCATTA GACTACTTAG TCATTTACTA ATTTTAAGAA
227041  TAGCTTGTCT TTTATTTATT TACTTATTTA TTTTTGAGAC GGAGTCTCAC TCTGTCACCC
227101  AGGCTGGAGT GCAGTGGCGC GATCTCGGCT CACTGCAACC TCCGCCTCCC GGGTTCAAGT
227161  GATTCTCCTG CCTCAGACTC CCGAGTAGCT GGGATTACAG TCATGCACCA CCATGTCTGG
227221  CTAATTTCTG TATTTTTAAT AGAGATGGGG TTTTGCCATG TTGGCCAAGC TGGTCTCAAA
227281  CTCCTGACCT TAGATGATCT ACCCACCTTG GCCTCCCAAA GTGCTGGGAT TACAGGCATG
227341  AGCCACTGCG CCCAGCCCTG CTTGTCTTTT TATTTTATAT TTGATTAGCT TTATCTTTTA
227401  TCAAGCTTAT GTCCTATTTC CCTTTGCTTT ACTTCATATA AATTTTGTTT TGGATAGTTT
227461  ATTTATTTTT CATTTAATTA TGAAACAGGT TAAAGCTTAG AGGAAAATTG CTCCTCTAAG
227521  TCCACTTTTG TGGGCAGATT ACATTTTGCT GTGTTGTGCT CCCAAATTCA TTGTTCTTTT
227581  AATGCTTTAT TTCTCAAGTT AATAACCTAT ATAGTAAAAA AGTGGCTGTT GACTCTCAGC
227641  TTTTTTTTTT TTTTTTTTTT TTTTTTGTA GATACAGGGA TCTTGCTGTG TTGCTCAGGC
227701  TGGTCTGAAA CTCCTGGCTT CAAGGGATCC TCCTGCCTTG GTCTCACAAA ATGCTGGGAT
227761  GACAGACATG AGACACCATG CCCAGCCATG TCTCTCTCCT TATATATAAT AAGAAAACAG
227821  ACACACTGAG GCATCCTATC ATCTCACTCT TGGTTTCACT ACTGTTCTCT GGAAGTTTTG
227881  CTCTGACCTT TTGCAGTTAA TGTATTAATT TTGCATTGAG TAGTTTCCAT AGAAGAATTA
227941  TAGCATTTGC ATTCTGTTGG GTATTATACT TTTCACTGTT ATTTGAACAT AATTTGAGGG
228001  CTGAAACCAA GATGAGGCAA GTGAGGTGCC CAGGAAGCAA TATTTAAGGA GGCATCCTTT
228061  CTTAGGCTCA TGCAAGAACA GAATTGGCAC ATGAGAGTGA GTGCCTCCTT AATTTTGAGT
228121  GCTGGACACT TCTTGCTCAC TTAGCATACC CCTGGACAAT GAAGTGTTTT TTGTTTTGTT
228181  TTTTCATGTC CATCCTTTAT CCTTCTTCAT CTCAAAACAT TTCAATGGAG TATTTTTTTG
228241  GAGCAGTACT TGGATGAGCC TCTGAGTCCC ACAGTAGCTG AGAATTTATT TCATAGTACT
228301  CTTTATGATC ACTGTGGAGC CTTAAAACAT TGTAATATTA ACTTAGCTGG GAACAGAAAT
228361  TTTGTTCCAC AATTTGTCTT ATTCAGAACA GTATTGACTT CCTGCTAGTC TCTTCTGATG
228421  TCCAATATGA GGAAGTCTAG TTAGCCAGCT ACTTTTTGTA GGAGAGCTAT GTTTAGGCTA
228481  GGTGCTATAG GATTCTCTTT ATCCTGGAAT TCCTTCACCA AGATGTGCCA AGGTGTTAAT
228541  CATTTTCTCT TGCTTTTTGG CTGGTGGTCT TAGAGTTTCC TTCGATTTTG TTTTATTTAG
228601  TGATTGTCCT CAATTTGTTT TCTTTACTAA GAATCTCTCT TCTATTTATC TGTATGGTAA
228661  AACCTTGTTG CCCATCTTTC TGGTTTCTGC TGACTTTCAT TTTTGGACCT TTTACTTTGC
228721  TTTCTCCATG GACTTTTTGG TAGTGGAGGC AGGCAAACAC TTTCCAAAGT CTTTCTCAAT
228781  TTCCATCAAT TTCAACTTAT TTCCTAAAAT TGCCTCAGAA TGTGCCTATG TCCACAATAT
228841  CCCTCCTTCC ACTTTAGAAA GGAAAGGCAT CCACACTTTA TTTAGGTGCA ATGCCTGAAG
228901  TGTAAACACT TTCTGGTTGT CAACAAAGGA GTACTTCCAA ATATTGGTTT GGGGATAACC
228961  TGCTAATGAT TAACACATTC ACCTTGGCTC TTGGTTTGCC TGCTCCCTCT TCTTTTATCT
229021  GCTGTGTGTA TTTTTTTTAA TCACTGAGAA TATGCACAGT ATTGTATGTT TTATTATAAG
229081  AGAGGACTGG CCAGAGTGGG AATGTTCTGA ATTCAGAATA ACTGAAGCAG TACAGGATAG
229141  GAACTCATTC TTTCAAATGA AGCTGGCATA TTTTCCCAGA GCACCAAATT TCAATATATA
229201  TTTAAAAAAC TTGATATGAA TGATACAATA AAGTGGTTAG AACTTTTATT AAAATAAACT
229261  TATGTCATGA AATACTTATT CTAATTATAG TCACTCTTCA TCTTATTTCA TCTTATAACA
229321  TGTTTAATGT TTTCTTTTAT TTACAAAACA ATTTATTTTT TGATGAAAAG TTTTAGAAAT
229381  CAAGTTAAAA ATATTCAAAG GAATGCCTAA AGTTTTCAAA ATTCTTTTAC ATGTTGTACA
229441  ATCAAAAGAG TCTGAAGACC ATTTAGCTAT CCAAATTGTT TATTTTTAAG CAGTATCCCT
229501  TCTAATATTT ACTATTTATA ATCCTTAAAA ATTTGCCTTA GCACAGGAGA ATTGCTTGAA
229561  CCCAGGAGAC GGAGGTTGCA GTGAGCCAAC ACAGTGCCAC TGCCCTCCAG CCTCGGCGAC
229621  AGAGTGAGAC TCTGTCTCAA AAAAAAAAAA AAAAAAAAAA AAAAAAGGCC AAAAACAAAT
229681  AAACAAACAA AAAAATCCGC CTTAACATTA TTTGTTCATT AAAAACTTTC TTTAATACTA
229741  CTAGTTTCCC TTTCCTCTCA GCCCATTGTC ATATTTTGAT TTTTATCACT TGCTTTGTAG
229801  GACATATGAG GTTTTTGTTT TTTTTTTTTT TTGGAGATGC AGTCTCCCTC TGTTGCCCGT
229861  GCTGGAGTGC AATGGCGCAA TCTTGGCTCA CTGCAACCTC TGCCTCCTGG GTTCAAGCAA
229921  TTCTCCTGCC TCAGCCTTCC AAGTAGCTGG GATTACAGGC ACCCACTACC ACGCCTGGCT
229981  AATTTTTGTA TTTCTGGTAG AGACGGGGTT TCACCATGTT GGCCAGGCTG GTCTCGAACT
```

Figure 9 (Page 71 of 74)

```
230041  CCTGACCTCA AGTGATCCAC AATCCTTGGC CTCCCAAAGT GCTATGATTA CAAGCATGAG
230101  CCACCTGCCC AGCCAGAATA TATGTTCATT TTGAGTCCTT TAACAAAGTC ATAAGAATTT
230161  TAGGAATTCA GTTACTTTCT TGAGAAAATC TCTGAAAAGA TGCCAATAAT TTGTAGCCAA
230221  TTATATTGAT TTCTCTTTTT CATATTGAGA ATTGTTTTTT AAAAAGTTTG TATGTGTGAA
230281  GATTTTTGCA CTGTAGTTAA AGAAACCACC TGTGTGTTGG TTAAGCCATA AGTACATGTA
230341  TTCAAATAAA TTGAGGTGGG GTTACTCTGA GAATCAAAGG AAAACCTGAA GAAACAGGCA
230401  GCCTCAAAAG GTCTTAGCTG TAGCAACTTG CTCCATTGTT GAAATAAATA GGCTTGAACT
230461  TGTATTTTCC CTCTACTCAA CATTTAAGGT CTCAGAAGAT AATATAATTG GTGAAATTTA
230521  AGTAAAGTGC TCACTCTTTT GCTTTAACAA ACCCTAGAGA GCTGGTAGGC AGAGCCTCAA
230581  CAGACCGTTT TAGCTTCCAA AGGGAGTTCA GGACACCATG ATTCACGACC ACAATACATC
230641  ACACATAATT GAGAAAAGAT AGTTCCACCA AATAAAGTTG AAATGCTGAC AAGAAGGGGT
230701  AAGAAATCTT GGAAATAGGT TTATATAAAA TTTATTTTTT CCTTTTTTAT TGTTATGGAA
230761  TAGGACCAGT TCTACTTAAG CCACCCATTT GCCAAAATAA AGTGAGAATC GTTTCTTTTG
230821  GGGACTCCTC TTTGTAGCTC CAAGTGCCAC TAACAATTCT TAGGACCTGA GCTATAAGCC
230881  AGGTGATTTC AGTTAATATG ATCAATTATT TCATTTAAAT GGCTCTAATG TGCAGAGGGA
230941  ACGGAGCCCA TCAGCATTCC CTGCAGGGAA CTGCAGTGGC TTTTATCAAC TTGAACAGCT
231001  AGCTTTCAAC TGTTTTGAAA TCACTTTCAG GGTGGTCATG TAGTTGCTTT TTTGAAATCA
231061  GAAGATGATT CTGCCTCTTT TAATATGTGA CTCCTCAGAT TCAGAAAGTG CTCGCTAGTC
231121  TTAAGAGTGA ATTACCCTCA GTGGTCCAGC GCTTATGAAC CCACATCTAA CCCTATCCCC
231181  TGGGGGAACT ATCAGAGAAA TTGGTGCCAT GGACATAAGA GGAAGGCACA GTGAAGCAGA
231241  GAGCCCCGCA TGATGAAAAT CAGTGGACAG CATCATTATT TACAACTTTG TAATCACCCA
231301  GGAGCATGAA AATCCAGGCC AATCTGGCAC CATGAGCTCT AATTTTTGTT GGAGTTCTTG
231361  GAACCGATTC TGATGAATGA CTGTTTAGCC ATTTTAGAGT GTGGCATACG TGGCTGCTGG
231421  CATACAGAGG TTGGATGTAA ACGGGCCTTT GCCCTCTCTT ATGAACATAG ACAGGAACTA
231481  AACTGTGTCA CATAGGTTCC AAATGGTGGC CTGAATACTA TTTACAACTA AGGTACAATG
231541  AAATTGAGTA AGTCTTTTCC TCTTTTGCAG ATACCATCAT TATTCATATA TTTCTTCAAA
231601  GTTAACTATT TGTATTTGGT AATTTTTAAT AGAAATGTAA TAATTGCTTC TCAAGTTTAG
231661  TCTTTAGTCT TAAGGTTGAT GCTCTCCATG TCCTTCCAAA AAAAGGTATG TTGCTTTTAT
231721  TATATCCTCG CCTTCAGATG GGATTATTCC ATTTTGTTCT TTGTTAATAT ATACTTTGAG
231781  CCACTTTTTT TGTGGCTCTG GGTGAGATGC TATAGGTACA ATGACAAGTG ATACGTGTGT
231841  TGTCCCTGTC ACAAAAGTGG ATAGCCTAAG TGGTGACTTT TACCTCCACT CCAAATATAT
231901  GTATCACACA CCAGCCGTAT GCCAGGCACC ACTCTAGGTG CTAGGGATAC AGCAGTAAAC
231961  AGACAAATGC AACCCCTGCC CATGTGAAAG AGAATAAGAC AATAAATAAG TAAAGTGCAT
232021  GTTATATGGA GGTGGCAAAT GCTAAAAAGA AAAATTAAGC AGGCAAGAGG ACTCATTGAA
232081  AAGATGACAT TTGGGTAAAA GCCCATGTAT ATATGTTCTA TTGGTTTTAT TTCTCTGGAG
232141  AGCCCTGACT AATACACAAT GACTTTGAGA AGTTACTGGC TTTTGATTTA TCACACTATT
232201  CGGAGTGCTG AGAGCCTTCT TAGTGTGTAT TCAGTGTTTT AAGAGAGCTT GTGGATGAAT
232261  AATAAATAGG ACAAAATTTA TCCAAACTTA AGCCTTGCTT TAGGTAAAAG GGCTCCTCTT
232321  ACAAGGTAGA AGGTTATTAT TTGACATTTA AATCCAACTG AAGACTAATA AGACTAATTA
232381  ATTAAAAGTT TTTAAATCAC AACTGCGTGC AAAATAAATG GAACTGCCAT GCTCGCCAAG
232441  TGTGCATGAG TGGTGTGCAT GGGAGACAGC ACGAAGCTAA TCCCACTCAT CTTGCAGGTT
232501  GCTCCATTTT TCTCCTAAAA TCAGTAAGAC AGAAGCTGGT CAGATTATCA AGAGCCCTAG
232561  TTAAACACAG CAGTAGCATT TGGAAGGGGT TGCTCTCATT AGGCAGTGCC TGACCACAAC
232621  AAGAGATGAA CAAGCCCTGT ATCTGAAGCC ATCATGCCTA GTTATGGTCC CCGACTGTTC
232681  ATGATGCCTG GAAGGGAGGC CCCCTGCACC CTAGAAAGCT GGGTGGGTTC TACTGTCTGC
232741  TTTACTGCTA AAAACCCTCT TCTTTGGATC TGGACTTTAC CTCTATCTGA TTTTTTTTTC
232801  TAATATATGA TTTGGCACTG AGTCTGTCAC TGCTGCTAAC TCAGCAGTTC TAGGGTCATT
232861  GCCCCATTGC CTCACAGAAA GAATTTCATA GCTTCCAGCA TCCTCTCTCC TTCATTATAC
232921  TTTGATTTCA GCATTGCTAT TTTTTCTCTT GGGTGTTGCA GCTCTCTCTC TCCTTCCCAT
232981  GTCTTGTTGG TTTTCTGCTA ACTCCTGCTT TTTTTCTTTT TTTTTTTTTG AGACGGAGTC
233041  TCGTTCTGTC ACCCAGGCTG GAGTGCAGTG GCACAATCTC GGCTCACTGC AACCTCCGCC
233101  TCCCGGGTTC AAGCTATTCT CCTGCCTCAG CCTCCCAAGT AGCTGGGACT ACAGGCGCTC
233161  ACCACTATGC CCCACTAATT TTTGTATTTT TAGTATTGCT GTCATCAATC CACATGTCCA
233221  GAAGCACCTA GAAACTCTAA TTCTTTGTAG GTATCAAACC CTAGGACTCT TTCCTCTAAT
```

Figure 9 (Page 72 of 74)

```
233281  CACAATATAT AATCCCTGAT TCCCAAACAC GGTCTTTTCA TATACATTTT CCACTGTACA
233341  TACTTTCTGA CCTGGAAAGC TCTTACACAA ACACGCCCTC CCCTAGGAAG CCTTTATAAA
233401  TGTTCCCAGG AAGAATCAGT CACCCAACAG TGTCCTTGTC ACATCTTAGG TTCTACACCT
233461  TTATTTGTTC TATCTGAATG TAATCTCCCA GAGGGTGTTA TCATCTTTTT TTTTGAGATG
233521  GAGTCTTGCT TTGCTGCCCA GGCTGGAGTG CAGTGGCATG ATCTCGGCTC ACAGCAACCT
233581  CCACCTCCTG GGTTCAAGTG ATTCTCCTGC CTCAGCCTCC TGAGTAGCTG GGATTACAGA
233641  CGTGTGTCAC CACACCTGGC TAATTTTTGT ATTTTTAGTA GAGACAGGGT TTCACCGTGT
233701  TGGCAAGGCT TTCCTCGAAC TCCCAAACTC AGGTGATCCA CCCACCTCAG CCTCCCAAAG
233761  TGCTGGGATT ACAGGTGTGA GCCACCATGT CCAGCCCCAT CTTTTTCTTT TAGTTTAGTT
233821  CTTAACAAAT AGTCTGACAC AAAGTGGATA TAACAATATT TTGAATTATG AATAACTAAA
233881  TGAATATTTC CAGATTTCCT GGTGCTCTCA AAGTTTTATG TTACAAAAGA AAAACAAGTC
233941  TAAAATACCT GCCTCAAGTT TTTATCTGTA CTATGATTTC AAACCAAATA AAAAACAGGT
234001  GGGGTAAAAA CTGAAACAGG AAATACATAT AACTGAAAAA TTTTGGTATG TTAGTATGAT
234061  AATACTAGGT CATTTTTCCT GTTTCCCCAA CTTCATTTTC TATAGCAATA AAAAGAAACA
234121  AGTAAATGTA TGTTAATTTA ATTTAAAAGA AGTAGTCTAC CATCTCTTCT GTTAAAAAGA
234181  AAAAAGTATT TTAAAAAATT ATCTCTGGAA GGATACACAG GGAACATTGC TCTGGTTTCT
234241  TCCAAGAGAG AAATGAGGAA CTAGAGAGCA TGGCCAAGTG GGGTTTTGCT TTTGTTTTTG
234301  TTTGTCTATC TGTTAGCTTT TTATTATTTT CTTTTGTAGG TTTGAATTTC AAACCACATA
234361  AATCTGTTAC ATGCTCATAA TAATAAGTTT AAAATAAAAC TTTTGGCTGG GTGCAATGAC
234421  TTACACCTGT AATCCCAGCG CTTTGGGAAG CAGAGGTGGG AGGATACTTG AGGCCAGGAA
234481  TTTGAGATCA GCCTGGGCAA CATAGTGAGA CCCTGCCTCT GTAGAAATAA ACAAAAATTA
234541  GCTGGATATG GTGGTGCATG CTTGTACTCC TAGCTACTTG GGAGGTTGAG GCAGGAGGAT
234601  CCTTTGAGTC CAGGAGTTTG AGGCTGCAGT GAGCTATAAT CACCCACTGC ACTATAGCAT
234661  GGGCAATAAG GTGAGAACTT GTCTCAAAAA AAAAAGGGGG GGGGGAAACA AATAAATAAA
234721  TATAAACAAA ACTTTTGTTT CAAAATATGT AATATTTAGC ACTAAAGAAT TCTGAATTGT
234781  AGAGCTAAAA AGTACTTAAA AGTTAATAAC TATTGTCTCC TTTAAAAGAA TTGTTATCAA
234841  AGTATAATTT TTATCCAGAA AATCATCCAT ATCAGCAAGC TAAACTTTCT CAAAATGACA
234901  TATCCATGTA ATTAGCTCCC AGGTAATTAG CAGGCAGCCT CTACTCAGGT TGAGTATTCC
234961  TAATCTAAAA ATTGGAAATT CAAAATGCTC CAAAATCTGC AACTTTTTGA ATGCTAACAT
235021  GATTCTCAAA GGAGTGCTCA TGGAGTATTT CAGATTTTGG ATTTTTGGAT TTGAGATACT
235081  CAGTATAATG CAAACATTCC AAATCTGAAA AAATCTGAAA TACTTCTGGT TCTAAGCATA
235141  AGGGATACTC AACGTGTGTT AGCTAATTAG ACCCTTCATG GTCTCTTCTA GACCTCAGCT
235201  TCTTCAAGGT AACCTCTATC CTCACTTCTA ATAGCATGAA CTTTTCTGTT TTAGAATAAT
235261  TTGGATTTTC AGGAAAGTTG CAAAGATAGT ACAAAGACAG TACAGGAGAG TTCCCATATA
235321  TCTTTCACCT AGCTTTCCCC CATTGTTAGG ATTTTACATT ATTATGATAC ATTTGTCAAA
235381  TATAAGCAAC TCACATTGAT ACATGAAACT CTATTAACCA AACCCTAGAC TTTATGTGGA
235441  TTTCACCACT GTTTCCACTA ATGTTTTCTT TCTGTTCCAA GGTCCAATCT GGAATACCAC
235501  ACTGCATTTT CTTGTCATAT CTCCCTAGTC TTTTTTTGTC TGTGACAATG TCTCAGTCTT
235561  TTCTTGCTTT TCATGACCTT AACAGTCCTG AAGATCATTT GCTTTTTTTT CATAATTACA
235621  CCGGAGTTAT AGATTTTTTG AAATAATACC ACAAGGGCAA AGGGCCCTTC TTGTCACATC
235681  ATTTTAGGGA GAACATGATA TCCACATGAC ATCACTGATA TTAACCTTCA TCATGTGGTT
235741  TAGGTAATGT TTCAGGTTTC TCTACTGCAA AGTGATTTTT TTCCCTTAAT TTAGCCCACC
235801  TGAACTTATC AATTTTGTTT TCTTCCATGA CTAATACTTT TGTTATTATA GCTAAAACTT
235861  CATTGGGGCC AAATCTTAGA TCATGTAAAT TTTCTTCTAT ATTTTATTCT AAAAGCTTGT
235921  AATGTTTGAT ACATTCTAAA AGATGTAATG TTTGATACAT TACATCTAGT CCTTTGATTT
235981  ATTTTTAGTT ACTTTTGTAT AAGGTGTGAG AGATGTCTCC AGTTTCACTT TATTAACACA
236041  TTGTGGTGTT CCAGTACTAT TTGTTGCTAA GACTATCTTT TTTCCATTGA TTACCTTTGC
236101  CTTAGTTGGC AATATTTTTG TTGGTTTATT TCTAGACTGT TTATCTCATT CCACTGATTT
236161  GTGTCTATCT TTTTGACAAA ACTGTTGATT ACAGTAAGCT TTGAAATAGT TCATTTTTTG
236221  TGTCAACTTG ACTGAGTCAG GGGATAACCA GCTATCTGGT TAAACATTAT TTCTGGCTGT
236281  GTTTGTGAGC GTGTTTCTGG ATGAGATTAG CCTTTGAATA GGTGATCCTA GTAAAGTAAA
236341  CTGTCTTTCC CAGTGTGGAT GGCATTATGC CACCTGATAT TCAGGGTCTG AATAGAAGAA
236401  AAGGCAGAGG AAGGGGGAAT TTGGGCCTTT TTTTCTGCCT CACTGCTTGA GCTGGGACAT
236461  CTCATCTGGT CTCCTGCTCT TGAACTGGGA TTTACATCAT CAGTTCCTCT GGTTCTCAGG
```

Figure 9 (Page 73 of 74)

```
236521  CCTTCAGATT CAGACTGAAT CATACCACCA GCTTTCCTGG GTCTCCAGCT TGCAGATTAC
236581  AGATCATGGG ACTCCTCATC TTCCATAAAT GCATGAGCCA ATTCAGTCTA TGTCCTTGAA
236641  AACTGCCCCA CTGCAGATTA AGGCTTTTTT CCACTAGGTG AAATAAAGAA GCTTGTTAGA
236701  CAGATTTCCC TTCATCCAGT GCCCTCTCCT CTTTAAGTTA CAACACATTG GCTACACCTA
236761  AGTGCAGGGG TGGGGATGAG GGTATAGTCC TCTTGTTTGC TGAGAAGAGA ACTGTATTGG
236821  GAAAGCTCTA GAAGTGTTTG ATACATACAT AAACAAGGCA TGGTTTTTGC ACTTAATTTC
236881  ACATTACATT TTTCCCAGAA AAAAAGGAAT GTATAGGCAT CACGTAACTG TACTAGCTGG
236941  AGTCATTCTT CCTGATTATC AAAGGTAAAC AGTTATTAAT CCTATACCAA GATGTCAAGG
237001  AGAAGTACTT TTGGAACACA AGGAATTCTC TGGGAGTCCT TACTACTCTC AAGCCCAGTG
237061  AAAAAGTTAA TGAAAAACTA TAGTACCTTC CTATAAGCTG GATGACTAAT TACCAGGCTC
237121  ATTTAGGAAT TTGCCTTACC AAGTAAAACA TAAGGGCAGC TGAGGTGCTG ACTGAAGACA
237181  AATGGAGCAT AGAATAAGAG TAGTAAAGAA TGCCAAAAAT GCTGTCATGT ATCCATTGAC
237241  AAAAGGAGCT ATAAAGCCTT TAGGTATTTT CACACTTGCT CTGTTACGTA AATGTATGTG
237301  TGTGTGTGTG TGTGTGTGTG TGTGTG
```

Figure 9 (Page 74 of 74)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US97/17658

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : C07H 21/04; C12Q 1/68; C12N 15/63, 15/85; C12P 21/02
US CL : 536/23.5; 435/6, 70.1, 325, 320.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 536/23.5; 435/6, 70.1, 325, 320.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS, DIALOG'S BIOTECH cluster.
hemochromatosis, BTF1, BTF2, BTF3, BTF4, NTP-3, NTP-4, RoRet, butyrophilin, type I sodium transport

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A, P	RUDDY, D.A. et al. A 1.1-Mb transcript map of the hereditary hemochromatosis locus. Genome Research. May 1997, Vol. 7, No. 5, pages 441-456, see entire document.	1-20, 22-77
X	FISCHER, L. et al. Cloning of the 62-kilodalton component of basic transcription factor BTF2. Science. 04 September 1992, Vol. 257, pages 1392-1395, see entire document.	28-33, 71
X	MARGOTTIN, F. et al. Participation of the TATA factor in transcription of the yeast U6 gene by RNA polymerase C. Science. 25 January 1991, Vol. 251, pages 424-426, see entire document.	22-27, 70

[X] Further documents are listed in the continuation of Box C. [ ] See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

20 JANUARY 1998

Date of mailing of the international search report

12 FEB 1998

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

F. PIERRE VANDERVEGT

Telephone No. (703) 308-0196

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US97/17658

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ZHENG, X.M. et al. Sequencing and expression of complementary DNA for the general transcription factor BTF3. Nature. 05 April 1990, Vol. 344, pages 556-559, see entire document.	34-39, 72
X	PANTEGHINI, M. Electrophoretic fractionation of 5'-nucleotidase. Clinical Chemistry. February 1994, Vol. 40, No. 2, pages 190-196, see entire document.	52-57, 75
X ---- A	BURT, M. J. et al. A 4.5-megabase YAC Contig and physical map over the hemochromatosis gene region. Genomics. 15 April 1996, Vol. 33, No. 2, pages 153-158, see entire document.	1-6 ---- 7-20, 22-77
A	VERNET, C. et al. Evolutionary study of multigenic families mapping close to the human MHC Class I region. J. Mol. Evol. November 1993, Vol. 37, No. 6, pages 600-612, see abstract in particular.	1-20, 22-77

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US97/17658

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☒ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US97/17658

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING
This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claim(s)1-20, drawn to polynucleotide sequences containing at least one polymorphic site, polypeptides encoded thereby, antibodies to said polypeptides and a method to determine the presence of the HFE gene mutation.

Group II, claim 21, drawn to the lymphoblastoid line atcc crl-12371.

Group III, claim(s) 22-27 and 70, drawn to BTF1 nucleic acids, gene products, vectors and antibodies.

Group IV, claim(s)28-33 and 71, drawn to BTF2 nucleic acids, gene products, vectors and antibodies.

Group V, claim(s) 34-39 and 72, drawn to BTF3 nucleic acids, gene products, vectors and antibodies.

Group VI, claim(s) 40-45 and 73, drawn to BTF4 nucleic acids, gene products, vectors and antibodies.

Group VII, claim(s) 46-51 and 74, drawn to BTF5 nucleic acids, gene products, vectors and antibodies.

Group VIII, claim(s) 52-57 and 75, drawn to NPT3 nucleic acids, gene products, vectors and antibodies.

Group IX, claim(s) 58-63 and 76, drawn to NPT4 nucleic acids, gene products, vectors and antibodies.

Group X, claim(s) 64-69 and 77, drawn to RoRet nucleic acids, gene products, vectors and antibodies.

The inventions listed as Groups I-X do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Groups I and III-X are drawn to physically different genes and their gene products and each therefore constitutes a separate invention. The lymphoblastoid cell line of Group II is not dependent upon the vectors of any of the Groups I and III-X and therefore constitutes a separate invention. Accordingly, the claims are not so linked by a special technical feature within the meaning of PCT Rule 13.2 so as to form a single inventive concept.